

| Reviewer Name                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
|-------------------------------|-----------|-----------|-----------|-----------|---|--|
| Tom Christensen               | 0         | 0         | 0         | 0         | There are serious lacks related to the Arctic and changes in, especially marine biodiversity and ecosystems. Important features, ecosystems and nature types, including polynias, upwellings etc. are not mentioned or handled. The publication CAFF. 2017. State of the Arctic Marine Biodiversity Report. Conservation of Arctic Flora and Fauna International Secretariat, Akureyri, Iceland. 978-9935-431-63-9, needs to be consulted. The reviewer can as co-lead for the Arctic Biodiversity Monitoring programme, under Arctic Council be helpful in integrating information relevant places | Information and references regarding Arctic marine biodiversity have been expanded in proportion to other general trends.  |
| Tom Christensen               | 0         | 0         | 0         | 0         | CAFF 2013 are referenced in relation to tundra changes. But references to CAFF 2013 and CAFF 2017 needs to be made to other nature types and species. CAFF 2017 includes important updates on status and trends on several species and focal ecosystem components within many different marine groups that are not included, and should be included, in this chapter (This includes seabirds).  | We have done the best we could to use the most recent data.  |
| Tom Christensen               | 0         | 0         | 0         | 0         | Seems like relevant information from Greenland is lacking. Relevant information can be found in the Strategic Environmental Impact Assessments published by Aarhus University, and also many advisory reports related to the living resources (including fish species) from the Greenland Institute of Natural resources. The reviewer can be helpful identifying relevant reports and literature.  | Additional references to studies on Greenland tundra have been added to emphasize that the status and trends described in the North American tundra section also apply to tundra ecosystems in Greenland |
| M. en C. Jessica Bravo Cadena | 0         | 0         | 0         | 0         | It is important to review the literature listed on the references. Used and format.   | All listed citations have been put in Mendeley and have been carefully checked   |

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| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass | 0         | 0         | 0         | 0         | The chapter focuses on the structure of biodiversity, but it is also important to include composition and function.  | We have included new references on the composition of the biomes, including endangered species and groups of species. However, we have avoided presenting lists of particular species. We have also included functional diversity.  |
| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass | 0         | 0         | 0         | 0         | It focuses on species diversity and does not comprehensively describe the other components of biodiversity   | Ecosystem functions have been included, as well as linkages between biodiversity and ecosystem function. We have also included a brief discussion on genetic diversity in the agriculture section. Moreover, metrics of functional diversity, phylogenetic endemism, and evolutionary distinctiveness have been included in addition to species richness. |
| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass | 0         | 0         | 0         | 0         | The chapter describes some aspects of biodiversity but does not link them to the processes that generated said biodiversity and that are necessary to maintain it. | The chapter avoids going deep into the origins of biodiversity but does address protected area coverage by subregion and biome. It also clarifies that habitat area is critical for the maintenance of diversity  |

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| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass                      | 0         | 0         | 0         | 0         | The content of this chapter overlaps with the other chapters in the book, without context or a clear guiding line.  | The overlap issues have been thoroughly dealt with and negotiated with the other chapter authors |
| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass                      | 0         | 0         | 0         | 0         | Mexico has information on most of the subjects in this chapter, however none of it was not included. In particular, CONABIO's website compiles and shares a large amount of knowledge and useful information for this chapter ( <a href="http://www.biodiversidad.gob.mx/">http://www.biodiversidad.gob.mx/</a> ).  | A number of Mexican scientists have now contributed as CAs to address this kind of deficiency    |
| Ana Luisa Santiago Pérez, Miguel Equihua, Virginia Meléndez Ramírez, Antonio de la Mora, Manuel Maass, Sofía Treviño Heres | 0         | 0         | 0         | 0         | In Mexico there are many manuals developed by government agencies (eg. SEMARNAT, SAGARPA, CONABIO) that describe sustainable practices for productive activities. Also, in preparation of COP13 of CBD, Mexico developed Strategies for Biodiversity Mainstreaming in Forestry, Agriculture, Fisheries and Tourism ( <a href="http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Forestal_EN_S.pdf">http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Forestal_EN_S.pdf</a> , <a href="http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Agricultura_EN_S.pdf">http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Agricultura_EN_S.pdf</a> , <a href="http://www.gob.mx/cms/uploads/attachment/file/187913/Pesca_EN_S.pdf">http://www.gob.mx/cms/uploads/attachment/file/187913/Pesca_EN_S.pdf</a> , <a href="http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Turismo_EN_S.pdf">http://www.biodiversidad.gob.mx/planeta/internacional/pdf/Turismo_EN_S.pdf</a> ). These can be examples of actions taken to reduce biodiversity loss. | A number of Mexican scientists have now contributed as CAs to address this kind of deficiency    |

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|---------------|-----------|-----------|-----------|-----------|---|--|
| Manuel Maass  | 0         | 0         | 0         | 0         | This chapter lacks a systemic view that places the different ideas into context. For example, when it describes endemisms it is not clear why they are important or how they differ among regions. It is important to link the discussion of endemism with its particular context and take into account that some endemisms are more important than others. | Different metrics of diversity including phylogenetic endemism have been included and explained. See Fig. 3.4. Endemic species have an intrinsic conservation value due to their irreplaceability. We have now included a new section where we specifically address the intrinsic value of biodiversity (3.3.1). Which species are more important is not something we can address in this chapter. |

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| María Santiago Jiménez, Ricardo Contreras Osorio, Wolke Tobón, David Loreto   | 0         | 0         | 0         | 0         | The chapter does not include information about genetic diversity, this is particularly important given that the continent is the center of origin and diversification of many species, and several of them are essential for agriculture.  | This has been dealt with briefly in the section on agriculture. In section 3.2.7. we state that “The biodiverse American tropics became a major center of origin for New World plants domesticated from the early to mid Holocene, many of which subsequently became important crops globally; Mesoamerica, the Andean region and the Amazon Basin, are significant centers of plant domestication for many important crops”. We have now also added a sentence specifically addressing genetic diversity: “While the genetic diversity of crop varieties has not been significantly reduced by plant breeders yet (van de Wouw et al. 2010), the domestication process is still ongoing (Casas et al. 2007).” |
| María Santiago Jiménez, Ricardo Contreras Osorio, Wolke Tobón, David Loreto, Patricia Koleff, Tania Urquiza y Sylvia Ruiz | 0         | 0         | 0         | 0         | The scale of the content of the chapter is not consistent with the one in the maps. Most figures presented are world maps, this does not represent the patterns that emerge at a regional scale, the analyses presented in this effort should be conducted at a continental scale. There are existing regional analyses which should be included to illustrate the subjects on the chapter | The maps have been edited and crafted to show the Americas only  |

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| Miguel Equihua | 0         | 0         | 0         | 0         | <p>This chapter does not include the loss of ecosystem functionality. In Mexico an ecosystem integrity index has been developed as a measurement that can be used as a baseline for this.</p> <p><a href="http://www.alianza-mredd.org/componentes/monitoreo-reporte-y-verificacion/productos/diseño-de-protocolos-de-monitoreo-para-estimar-la-integridad-ecologica-en-selvas-y-bosques-de-sitios-prioritarios-de-la-alianza-mexico-redd-63#.WWjw9YQ19hF">http://www.alianza-mredd.org/componentes/monitoreo-reporte-y-verificacion/productos/diseño-de-protocolos-de-monitoreo-para-estimar-la-integridad-ecologica-en-selvas-y-bosques-de-sitios-prioritarios-de-la-alianza-mexico-redd-63#.WWjw9YQ19hF</a></p> | <p>Although reviewer's comment is interesting, we have decided to avoid this level of detail because of space constraints. However, ecosystem functions have been included, as well as linkages between biodiversity and ecosystem function. We have also included a brief discussion on genetic diversity in the agriculture section. Moreover, metrics of functional diversity, phylogenetic endemism, and evolutionary distinctiveness have been included in addition to species richness.</p> |

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| Patricia Koleff,<br>Tania Urquiza,<br>Sylvia Ruiz, Ana<br>Luisa Santiago<br>Pérez, Miguel<br>Equihua, Virginia<br>Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | The regionalization used in this chapter is not consistent nor coherent with the continent's biogeography, sometimes it is based on political boundaries and sometimes it is not. This is particularly relevant for Mexico, which has Neotropical and Nearctic ecosystems, we suggests to use biogeographical regions and, when a country belongs to one or more regions or a region encompasses more than one country that this be carefully explained in the text to provide context for the reader | The decision on regionalization was established by MEP, and thus it is something we can not modify. |

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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | A large, varied and interdisciplinary group of authors is key to develop an assessment. We would suggest involving more authors from other countries in the Americas to balance the information presented in the chapter | A considerable number of Mexican lead authors have been added to the process to balance the information.   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | This book should seek to provide a new analyses that includes all the American continent with key information that policy makers can easily use  | The content covers the American continents. We have endeavored to include summary statements that are directly relevant to policymakers and can be readily understood. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | This document is not written for policy makers, it lacks information for policy implementation and a synthesis that reduces complexity   | We have fully edited the chapter to make it accessible to nonscientists and relevant to policymakers   |



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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | Most of the information presented in this chapter is descriptive, and it does not consider the underlying causes of the current status or trends and does not link it to the different modes that ecosystems are managed (landscapes, agro ecosystems, etc.)   | The underlying causes of the current status or trends are described in Chapter 4   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | The structure of this chapter should be revised, the current structure is confusing and does not provide context for the different subjects that it contains   | The chapter has been reorganized   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | Te information in this chapter focuses mainly on USA and Canada, overlooking many published scientific papers and documents that contain relevant information for the rest of the countries such as Global Outlook 4, América Latina y el Caribe: Atlas de un ambiente en transformación, Domesticación en el continente americano, Análisis de Riesgo y propuesta de categorización de especies introducidas para Colombia, Especies acuáticas invasoras en México, Capital natural de México, etc. | We have taken all steps possible to ensure a balanced treatment, and the chapter is well-balanced across the subregions to the extent it was possible given the available expertise. The Mesoamerican contribution was considerably enhanced. There is now a section on domestication, written by Mexican scientist Alejandro Casas. We have also reorganized and reduced the length of biome treatments, including those that occur in North America. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | The chapter does not include key subjects for Latin America, such as biodiversity of agricultural species, sustainable management or genetic resources   | New subjects regarding biodiversity of agricultural species, management and genetic resources for Latin America have been added to the text  |

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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | The chapter is also biased towards terrestrial ecosystems, it is necessary to include more information about coastal and marine ecosystems  | The content on coastal and marine ecosystems has been substantially increased in this version.  |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | It considers urban areas but not rural areas, thus ignoring many different landscapes across the continent. It also fails to describe the impact cities have on other ecosystems  | We have included a section on Biodiversity and people. We now have a section on agroforestry in addition to an urban section. The urban section has been rewritten and includes treatment of gradients from urban to rural. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | Most figures are taken from scientific papers and other publications, this may cause a problem with publishing permits  | All figures have permission for publication. Many were crafted from publically accessible data specifically for the the chapter   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | while there is a great number of references in this chapter, a closer look a them reveals that there was not comprehensive search of existing relevant information for the topics described. For example there are many references from the same authors regarding invasive species and, as it was mentioned on the first comment there are several relevant reviews and assessments that were not included | It is not clear why reviews should be highlighted above original contributions. The chapter is well documented and references have been carefully checked   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 0         | 0         | 0         | 0         | Review references, some are incomplete (Alagona, P. S., Paulson, T., Esch, A. B., & Marter-Kenyon, J. (2016). Population and land use. )  | References have been carefully reviewed   |

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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón,<br>Sylvia Ruiz, Rafael<br>Calderón, Carolina<br>Ziehl Quirós,<br>Sandra Quijas<br>Fonseca, Jessica<br>Bravo Cadena,<br>Ana Luisa Santiago<br>Pérez, Miguel<br>Equihua, Virginia<br>Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras<br>Osorio,David<br>Loreto. | 0         | 0         | 0         | 0         | This chapter divides natural and antropic ecosystems, however there is a great gradient of different management intensities and landscapes that should be included   | We have included a section on Biodiversity and people that includes treatment of agroforestry and other managed systems. |
| PhD. Antonio de la Mora  | 0         | 0         | 0         | 0         | Maintain the analysis of the status of biodiversity in the units of analysis proposed in the framework.  | Status of biodiversity is treated for each biome component and subregion   |
| PhD. Elva Escobar  | 0         | 0         | 0         | 0         | The chapter should address the patterns of change in latitudinal biodiversity not only at terrestrial level, but from terrestrial to aquatic.                        | The marine/aquatic section has been addressed with considerable effort   |
| PhD. Manuel Maass  | 0         | 0         | 0         | 0         | The ecosystem approach has the characteristic of giving importance to the context in a hierarchical way (multi-levels nested). This is lost if we refer to "nature". | This is a decision made by the IPBES process, not the authors of chapter 3.  |

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| PhD. Manuel Maass | 0         | 0         | 0         | 0         | It is necessary to recognize the importance of preserving the rural (country farming) way of life for the conservation of the diversity of domesticated germplasm. | This is now emphasized in Mesoamerican subregion and can be expanded in South America; less relevant in North America - but we call it out in the vignette (Box 3.4) on the Menominee nation. We have brought this into the larger context on the consequences of management practices for biodiversity and ecosystem services (NCPs); management can be by individual landholders, communities, government lands or in protected areas. In the section on agricultural systems we have now also added a sentence specifically addressing genetic diversity: "While the genetic diversity of crop varieties has not been significantly reduced by plant breeders yet (van de Wouw et al. 2010), the domestication process is still ongoing (Casas et al. 2007)." |

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| PhD. Miguel Equihua | 0         | 0         | 0         | 0         | It is important to keep the focus on the "state of the biophysical system", even if the human impact is obviously important.  | We have checked the whole chapter and rewritten some parts trying to keep the focus on the state of the biophysical system |
| PhD. Miguel Equihua | 0         | 0         | 0         | 0         | Emphasize the ecosystem dynamics as a central theme, especially considering that through it a large part of biodiversity is produced. This leads to centers of origin and diversity. "Ecosystem integrity" measures in part the preservation of this functionality. | Dynamics are more thoroughly considered in this version.   |

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| PhD. Virginia Meléndez  | 0         | 0         | 0         | 0         | It is necessary to consider and include the different ecosystems of Mesoamerica.  | We have greatly expanded the treatment of Mesoamerica with the addition of a number of Mexican scientists as CAs   |
| Rafael Calderón, Carolina Ziehl Quirós, Sandra Quijas Fonseca, Jessica Bravo Cadena | 0         | 0         | 0         | 0         | This document lacks key elements of an assessment, such as synthesizing information, being written for policy makers, having a broad and complex coverage of the topic, etc.  | We have done our best to synthesize it and write it in an accessible manner to policymakers. We note, however, that this chapter provides considerable empirical data that provides the support for many of the key messages that are in the Statement for Policymakers. The thoroughness of the chapter and the careful presentation of the data underpin our ability to make summary statements relevant to policy |
| Rafael Calderón, Carolina Ziehl Quirós, Sandra Quijas Fonseca, Jessica Bravo Cadena | 0         | 0         | 0         | 0         | Throughout the chapter there is no methodological consistency to describe status and trends. The concept of status and trends is not clear and it is also not clear when the text refers to present or future trends. | We have endeavored in this version to be very consistent about status and trends for the treatments of biomes and in the overview of biodiversity and ecosystem services across the Americas   |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena | 0         | 0         | 0         | 0         | There is a lack of coherence between the sections of the chapter and it seems like a guiding line between sections, and even between chapters, is missing. Also sections are not standardized. There is no clear structure and the information presented in each section has different formats and order, making it hard to follow and even causing to miss the message the chapter wants to convey. | We have fully reorganized and edited the chapter to address these shortcomings  |
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena | 0         | 0         | 0         | 0         | The structure of this chapter needs to be reconsidered, this work needs to set an agenda that highlights priorities for policy makers and it currently does not.   | The chapter has been restructured   |
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena | 0         | 0         | 0         | 0         | Most of the information presented is descriptive instead of an analysis of the current status and trends of biodiversity.  | The chapter is required to report on the status and trends of biodiversity and ecosystem services. Many analyses have been included to document what those status and trends are by biome and subregion across the Americas |
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena | 0         | 0         | 0         | 0         | There is no information about cultural systems and landscapes for Latin America.   | We have included a section on cultural diversity that includes landscapes and agroforestry systems  |

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|--|-----------|-----------|-----------|-----------|---|--|
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena   | 0         | 0         | 0         | 0         | The subject of habitat loss and degradation for marine ecosystems is not included.  | Habitat loss and degradation is addressed for marine systems to the extent the information is available. See in particular the treatment of coral reefs. It was included in the sections on coastal ecosystems and loss of salt marsh and mangroves. |
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena   | 0         | 0         | 0         | 0         | It is important to analyze if the topic of protected areas should in fact be part of this chapter. If so, it is crucial to make sure it does not overlap with chapter 6 and to ensure that other conservation and sustainable use tools and mechanisms need to be included as well. | Protected areas are still covered in this chapter. Overlap issues have been addressed  |
| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | There are no causal relationships explained in the Executive Summary.   | Extent causal relationships are included in the Executive Summary to the extent they were understood   |



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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | It is necessary to define a general structure line that links chapter 3 with chapters 2 and 4. | We have included a figure to clarify how chapter 3 fits in connection to chapters 2 and 4. Also, we have worked with chapter 2 to dovetail a figure that links biomes and NCPs. |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | Balance the information on status and patterns of species richness, phylogenetic diversity and with functional diversity. | A new Figure has been added to clarify how Chapter 3 fits in connection with Chapters 2 and 4. Also, we have worked with Chapter 2 to dovetail a Figure linking biomes and NCPs. |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | The content of this chapter seems not to achieve its objective while being excessive, too descriptive and vague. | The content has been substantially revised to reduce wordiness and length. It has been reorganized for clarity and efficiency. The number of figures has been substantially reduced. The Key Messages have been carefully revised to clarify the most critical aspects of the chapter and their relevance to policymakers |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | The chapter should achieve to compile information in relation to its objetctive and purpose, including a diagnose and conclusions. | We have included several synthesis figures and tables in an effort to synthesize the work in the chapter. We provide brief conclusions. The Executive Summary draws out the primary messages. |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | It is important to showcase representative examples of each subregion of the Americas (particularly Latin America) and to seek a balance of geographical representation (as far as possible). | We have a balanced treatment of the subregions and have a series of case study examples throughout the chapter. |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | <p>Include information on Mexican landscapes and traditional and current socio-ecosystems, such as:</p> <ol style="list-style-type: none"> <li>1. National System of Management Units for the Conservation of Wildlife (SUMA)<br/>(<a href="http://dgeiawf.semarnat.gob.mx:8080/ibi_apps/WFServlet?IBIF_ex=D3_R_BIODIV04_02&amp;IBIC_user=dgeia_mce&amp;IBIC_pass=dgeia_mce">http://dgeiawf.semarnat.gob.mx:8080/ibi_apps/WFServlet?IBIF_ex=D3_R_BIODIV04_02&amp;IBIC_user=dgeia_mce&amp;IBIC_pass=dgeia_mce</a>)</li> <li>2. Payment for Environmental Services (PES)</li> <li>3. La milpa - traditional agriculture system<br/>(<a href="http://www.biodiversidad.gob.mx/usos/alimentacion/milpa.html">http://www.biodiversidad.gob.mx/usos/alimentacion/milpa.html</a>)</li> </ol> <p>Provide information on traditional and socio-ecosystems, considering the status and trends.</p> | <p>Some of this has been included. We have added a section on biodiversity and people that emphasizes the Mesoamerican subregion. We have added contributions from a number of Mexican CAs.</p> |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | <p>Proposed literature from Mexico, particularly from the National Forestry Commission (CONAFOR):</p> <ol style="list-style-type: none"> <li>1. Guía de mejores prácticas del manejo forestal para la conservación de la biodiversidad en ecosistemas templados de la región norte de México (<a href="http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/Libros2014/CD001824.pdf">http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/Libros2014/CD001824.pdf</a>).</li> <li>2. Guía para la caracterización y clasificación de hábitats forestales (<a href="http://www.conafor.gob.mx:8080/documentos/docs/49/6661Gu%C3%ADa%20para%20la%20caracterizaci%C3%B3n%20y%20clasificaci%C3%B3n%20de%20h%C3%A1bitats%20forestales.pdf">http://www.conafor.gob.mx:8080/documentos/docs/49/6661Gu%C3%ADa%20para%20la%20caracterizaci%C3%B3n%20y%20clasificaci%C3%B3n%20de%20h%C3%A1bitats%20forestales.pdf</a>).</li> </ol> | Most of the proposed literature has been added through the contributions of the new Mexican CAs. |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | <p>Mexican relevant publications:</p> <ol style="list-style-type: none"> <li>1. Estrategia Nacional de Biodiversidad<br/>(<a href="http://www.biodiversidad.gob.mx/pais/pdf/ENBIOMEX_baja.pdf">http://www.biodiversidad.gob.mx/pais/pdf/ENBIOMEX_baja.pdf</a>)</li> <li>2. Capital Natural de México<br/>(<a href="http://www.biodiversidad.gob.mx/pais/capitalNatMex.html">http://www.biodiversidad.gob.mx/pais/capitalNatMex.html</a>)</li> <li>3. Estudios Estatales de Biodiversidad<br/>(<a href="http://www.biodiversidad.gob.mx/region/EEB/estudios.html">http://www.biodiversidad.gob.mx/region/EEB/estudios.html</a>)</li> <li>4. Estrategias Estatales de Biodiversidad<br/>(<a href="http://www.biodiversidad.gob.mx/region/EEB/estrategias.html">http://www.biodiversidad.gob.mx/region/EEB/estrategias.html</a>)</li> </ol> | Most of this material has been incorporated in the sections contributed by the Mexican CAs. |



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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | When addressing island ecosystems, the chapter is mainly considering the islands of the Caribbean. However, the insular ecosystems of each continental country are not represented. We would particularly like to see Mexico's islands represented. | The Caribbean is emphasized because it is a subregion that requires specific treatment. Other island systems are included to the extent that they contribute in a manner that stands out beyond the treatment of the subregion in which they occur. Continental islands tend to have biodiversity (species richness and endemism) more reflective of continental ecosystems and in a biological sense should be considered with continental ecosystems/biomes (could mention these islands in the mesoamerica and other subregions). In a socioeconomic context they may share issues and uses with the more Oceanic islands of the Caribbean and could be mentioned as distinct in the other subregions. |

| Reviewer Name  | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | There is no information on the subject of Mediterranean ecosystems in Mexico. There is a lot of information available, particularly for Baja California, that should be considered. | By area, the biome is most represented in South American and North American subregions. We have endeavored to expand the treatment to some extent into Mesoamerica. We have also reorganized the chapter by biome. Each subregion is treated within the biome and we frequently combine subregions to avoid redundancy. |

| Reviewer Name  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 0         | 0         | 0         | 0         | The title includes "future dynamics", but the topic is not addressed in the Chapter.   | We have removed all treatment of future trends and dynamics to avoid overlap with chapter 5             |
| DESP/Sbio/MMA  | 1         | 1         | 126       | 3366      | In general, the chapter lacks bibliography and examples to illustrate the current status and to support trends for the Americas biodiversity and ecosystems. It should be highlighted, that there is a serious lack of information on the session regarding the marine systems. Many important ecosystems and initiatives were not mentioned throughout the document, and there was little scientific information to support the status and trends for each ecosystem. | Considerable effort was invested in enhancing the marine sections and supporting the status and trends. |

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|--|-----------|-----------|-----------|-----------|--|--|
| Monica Trujillo  | 1         | 1         | 223       | 6132      | <p>It is necessary to strenghten status, trends and future dynamics of biodiversity on Paramo ecosystem, because of its importance in Colombia, Venezuela, Ecuador and Perú. Please review:</p> <ol style="list-style-type: none"> <li>1. "Biodiversidad, 2015. Estado y tendencia de la biodiversidade continental de Colombia".</li> <li>2. "Marín, C. y Parra, S. 2015. Bitácora de flora: guía visual de plantas de páramo en Colombia".</li> <li>3. "Forero Ulloa, Fabio Emilio ; Cely R., Germán Eduardo ; Palacios Pacheco, Laura Sofía, 2015. Dinámica del páramo como espacio para la captura de carbono. UPTC".</li> <li>4. Hofstede, Robert et.al (2014). Los Páramos Andinos ¿Qué sabemos? Estado de conocimiento sobre el impacto del cambio climático en el ecosistema páramo. UICN. Quito. Ecuador</li> <li>5. Hofstede, R., Vásquez, S. y Cerra, M. (Ed) (2015). Vivir en los páramos. Percepciones, vulnerabilidades, capacidades y gobernanza ante el cambio climático. UICN, Quito. Ecuador</li> <li>6. Wouter B, et al. 2006. Human impact on de hydrology of the Andean páramo, Science Direct.</li> <li>7. Ochoa B, et al. 2016. Impacts of land use on de hydrological response of tropical Andean catchments. Hydrological Processes</li> <li>8. Tobón C, 2007. Capacidad de interceptación de la niebla por la vegetación de los páramos andinos. Avances en recursos hidráulicos Ed. Universidad Nacional de Colombia</li> <li>9. Tobón C, 2010. Understanding the hydrology of tropical Andean ecosystems through an Andean Network of Basins" International Association of Hydrological Sciences.</li> <li>10. W. Buytaert et al, 2010. Potential impacts of climate change on the environmental services of humid tropical alpine regions. Global Ecology an biogeography.</li> </ol> | Several of these references were originally in the text but unfortunately were removed due to space constraints. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 1         | 1         | 1         | 2         | The tittle of the chapter does not reflect its content   | The title has been edited to better reflect its content  |

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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón,<br>Sylvia Ruiz, Rafael<br>Calderón, Carolina<br>Ziehl Quirós,<br>Sandra Quijas<br>Fonseca, Jessica<br>Bravo Cadena,<br>Ana Luisa Santiago<br>Pérez, Miguel<br>Equihua, Virginia<br>Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass | 12        | 12        | 385       | 387       | The content of the chapter is not consistent to what (according to these lines) is the objective   | Ecosystem services are defined in Chapter 2. We have edited the title and objectives to address reviewer's comment         |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz  | 12        | 14        | 376       | 480       | Information in this section overlays with the subject of chapter 2. The background should provide context for the region and describe the objective of the chapter | We have edited the first part of the chapter and included a figure to explain the linkages between chapter 3 and chapter 2 |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz  | 16        | 16        |           |           | Figure 3.1.b is not described in the text or used to illustrate an example   | All figures have been referred to in the text and are used to illustrate a point. Otherwise they have been removed.        |
| United States<br>Government   | 1         | 17        | 1         | 17        | "Kurt" Flather should be "Curt" Flather.   | The sentence has been corrected  |

| Reviewer Name   | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón,<br>Sylvia Ruiz, Rafael<br>Calderón, Carolina<br>Ziehl Quirós,<br>Sandra Quijas<br>Fonseca, Jessica<br>Bravo Cadena,<br>Ana Luisa Santiago<br>Pérez, Miguel<br>Equihua, Virginia<br>Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras<br>Osorio, David<br>Loreto. | 15        | 20        | 485       | 612       | This section focuses on the description of carbon, nutrient and water cycles which are ecosystem functions, and the subject of chapter 2. The trends subsection is not thoroughly described and thus it does not explain the differences between regions or the implications that these trends may have on biodiversity. Ecosystem functions should be moved to Chapter 2 (eg. biogeochemical cycles) | Chapter 2 focuses on Nature's Contributions to People (NCP; i.e., ecosystem services), and not on ecosystem functions. This may be derived from biodiversity or from ecosystem functions. Chapter 3, however, covers ecosystem functions. After several discussions we agreed on addressing both biodiversity and ecosystem functions in Chapter 3. |
| Ricardo Castro-Díaz   | 1         | 25        | 1         | 25        | Patricia's home country is Mexico, not Argentina.   | The sentence has been corrected   |

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| PhD. Miguel Equihua  | 9         | 29        | 9         | 293       | "...biodiversity itself is linked to ecosystem function (established but incomplete)" is a conceptual failure, since by construction it is true.  | We have carefully treated the linkage between biodiversity and ecosystem function in the revised version.  |
| Patricia Koleff, Tania Urquiza, Wolke Tobón y Sylvia Ruiz, Rafael Calderón, Carolina Ziehl Quirós, Sandra Quijas Fonseca, Jessica Bravo Cadena | 35        | 42        | 860       | 1009      | The information presented for some topics is broad while in others is deficient, for example in this section focuses on marine mammals and sea turtles and overlooks many other important key elements of marine biodiversity | The experts for the marine section have done their best to provide complete coverage for all taxa. However, some taxa have more available data than others. This issue is treated in the data gaps. A section on Chondrichthyes has been added and a reference to the sections on fish and invertebrates (presented in a different section). |
| Patricia Koleff, Tania Urquiza, Wolke Tobón y Sylvia Ruiz  | 48        | 48        | 1132      | 1132      | It is not clear how the regionalization was made for this table (3.4)   | The decision on regionalization was established by MEP, and thus it is something we can not modify.  |
| Patricia Koleff, Tania Urquiza, Wolke Tobón y Sylvia Ruiz  | 50        | 50        | 1169      | 1169      | The Protection Index mentioned has no reference   | The proper reference has been added.   |

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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 50        | 50        | 1171      | 1171      | the Protection Area Connectedness mentioned, lacks a reference  | The proper reference has been added.   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 47        | 52        | 1105      | 1202      | The subject of protected areas is included without proper context, describing that it is a response to stop or reverse biodiversity loss. There are also other tools that have been developed to protect biodiversity or manage it sustainably that are not included in this chapter (e.g. environmental management units, community forestry management, payment for ecosystem services, etc.) | Some of these aspects are discussed in Chapter 6, where policy options are better discussed than in Chapter 3. This chapter only deals with the status and trends of biodiversity and ecosystem functions. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 20        | 60        | 613       | 1443      | This section describes spatial biogeographical patterns but it does not describes trends or potential future changes. We suggest to read Peterson et al. 2016. Twentieth century turnover of Mexican endemic avifauna's... and follow as an example of a study that overviews status and trends of a species' group   | We removed all treatment of future trends, which belongs to Chapter 5.   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 20        | 60        | 613       | 1443      | Invasive species' information in this section are given more lines than native biodiversity. The subject is also described with no context and lacks information about other countries (e.g. <a href="http://www.biodiversidad.gob.mx/invasoras">http://www.biodiversidad.gob.mx/invasoras</a> )  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.  |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 20        | 60        | 613       | 1443      | This chapter does not provide a context about drivers and pressures of biodiversity loss and thus the different sections in it seem unarticulated and it is unclear the message it wants to give to decision makers   | The context about drivers and pressures are provided in Chapter 4.   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 20        | 60        | 613       | 1443      | There is no explanation about the links between the changes in the carbon, water and nutrient cycles and of biodiversity loss   | The changes raised by the reviewer were added to the extent they were understood and could be described  |



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| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 61        | 82        | 1146      | 2048      | In section 3.3.1.1 (North American sub region) the figures that show the projected changes in mean temperature and precipitation for each biome are provided without context or explanation about the implications that these changes may have for biodiversity. It is important to note that this information is available for other counties and was not included | Predicted changes have been removed because Chapter 3 no longer deals with future trends.  |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 82        | 86        | 2049      | 2171      | The information presented in this section does not reflect all the information that is available for the countries included in this region, particularly in Mexico's dry lands and deserts (which should have been included in North America )  | The drylands section has been expanded to cover Mesoamerica more thoroughly.   |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 82        | 86        | 2049      | 2171      | In the Mesoamerica sub region there are temperate forests, although it is a tropical region at high altitudes pine, oak and cloud forests are found and they should be included   | For this Chapter we were told to follow the IPBES biome classification, which combines high elevation forests with tundra. Temperate forest biomes, according to the same classification, are only in North and South America. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 61        | 121       | 1444      | 3208      | This section mixes information about biomes' conservation status, pressures and responses (protected areas), without context that allows the reader to understand the relationships between these subjects  | The chapter has been reorganized, made more consistent within and across sections, and the relationships between these components have been more carefully explained.  |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 61        | 121       | 1444      | 3208      | This section also overlooks published information for Latin-American countries  | As explained above, new material has been contributed from a number of Mexican CAs.  |

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|--|-----------|-----------|-----------|-----------|---|--|
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 61        | 121       | 1444      | 3208      | We suggest the inclusion of insular ecosystems in this section, not only insular counties like Cuba, but the islands that belong to countries in the Americas   | Insular areas are synthetically included in diversity patterns, trends and invasive species                      |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 61        | 121       | 1444      | 3208      | The subjects described in this section are very similar to the ones in section 3.2, as a result the information is overlapped or fragmented between the two sections, this makes it difficult to follow the line of thought the text  | The chapter has been substantially edited and the redundancy issues removed.                                     |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 121       | 125       | 3209      | 3301      | This section lacks a lot of information, just because there are a lot of species that have yet to described does not mean there have not been great efforts to describe them and many analyses that have worked with the available information that become important contributions for policy making. | We have included trends in species descriptions through time in Figure 3.35                                      |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 121       | 125       | 3209      | 3301      | Even though less information about marine ecosystems has been generated than for terrestrial ecosystems there still is a lot of relevant information and analysis that can help understand the current status and trends of this biomes   | The marine experts made considerable effort to flesh out the status and trends of biodiversity in these systems. |
| Patricia Koleff,<br>Tania Urquiza,<br>Wolke Tobón y<br>Sylvia Ruiz | 125       | 125       | 3298      | 3301      | This statement is untrue, there is a lot of published and available information for the "other sub regions" that was not included in this review  | We have not been able to locate the exact statement referred in this comment                                     |
| Elise Belle  | 6         | 182       | 125       | 3302      | Throughout the document, I think it would be good to crop some maps and focus on the Americas region instead of the whole world (e.g. Figures 3.6, 3.7, possibly 3.20, and 3.28)  | Figures have been readapted to focus on the Americas following reviewer's suggestion                             |
| Andrea Larissa Boesing   | 6         | 183       | 11        | 375       | Also, it would be possible to include a footnote saying what do you mean by 'well established', 'establish but incomplete'...etc. ? I think it would be easier for readers to understand it.  | This information is provided in Chapter 1  |

| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------|-----------|-----------|-----------|-----------|--|---|
| Carlos Alfredo Joly | 6         | 183       |           |           | The Americas house a large fraction of the Earth's terrestrial, freshwater and MARINE....  | Marine biodiversity is described alone in an specific key section   |
| Co-chairs           | 5         | 183       | 6         | 198       | No mention of marine biodiversity at all. Even if globally typical, this should be mentoned. For completeless  | Marine biodiversity is described alone in an specific key section   |
| Manuel Maass        | 6         | 183       | 6         | 197       | Include tropical forests as ecosystems with high diversity of endemic species.   | Tropical forests have been included as ecosystems of high diversity of endemic species a few lines below.                                       |
| Juan Comerma        | 6         | 186       | 6         | 187       | the use of Biomes does not pay enough attention to important subdiviions in altitude in the mountain ranges. The life zones of Holdridge is more precise in that sense   | The characterization of subdivisions was established externally   |
| Co-chairs           | 5         | 186       | 6         | 189       | What about the diversity of the tropical and subtropical coral reefs, with very high diversity at the levels of Phyla, Class, Order etc at least as high or higher than any of these terrestrial ystems  | Information on coral reefs biodiversity has been increased (see for example Figure 3.10)  |
| André Mader         | 6         | 186       | 6         | 188       | I did not see a reference for this in the text, As far as I understand, the Atlantic Forest on South America's east coast is the richest per unit area (concentration) in the world. The Amazon surpasses it in overall richness because of its size. Perhaps you can change the wording to make this clearer? | We are not referring to species richness per unite area but to the number of species contained in the whole biome. The wording has been edited. |
| Cristobal Diaz      | 6         | 188       | 6         | 189       | I suggest include: "...tropical savannahs and grasslands and in the high Andean zone (well established) (Section 3.3.1.4); and in the same manner the endemic biodiversity richness in the Caribbean islands (3.2.2.2- lines 350 to 354), and the Mesoamerican Corridor.                                       | This setence has been completely edited in the current version  |
| Carlos Alfredo Joly | 6         | 199       |           |           | ....any taxonomic group studied either for terrestrial, marine or FRESH WATER....  | This sentence has been deleted in the current version   |

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|---|-----------|-----------|-----------|-----------|--|--|
| Thomas Brooks                                 | 6         | 199       | 6         | 213       | Paragraph 2 of the Executive Summary, on invasive species in the Americas, is valuable and useful - important to retain  | Thank you for the encouraging comment  |
| Consensus                                     | 6         | 199       | 6         | 213       | Point number 2 of the Executive Summary is not clear and appears to have great conceptual misunderstanding   | Executive Summary has been completely edited in the current version  |
| André Mader                                   | 6         | 199       | 6         | 213       | The bold text talks of alien species, while the rest talks mostly about invasivealien species  | All texts have been changed to "alien species" for consistency.  |
| Cristobal Diaz                                | 6         | 203       | 6         | 206       | I propose the following: " For their land areas, the North American currently house larger contingents of alien species in general and more invasive species known to be harmful to biodiversity, and the Caribbean for its land area is clearly very susceptible to invasion , in congruence with point 3.2.2.3 (779-781) . | The text has been changed following reviewer's suggestion  |
| E. Arguedas y C. Roldán                       | 6         | 204       | 6         | 206       | It is important to include invasive species of Caribbean sea as lion fish-   | The proposed example is a current case of study. Due to space constraints, the number of case studies had to be limited. |
| The Biodiversity Indicators Partnership (BIP) | 7         | 214       | 7         | 250       | Paragraph 5 of the Executive Summary, on protected area coverage of key biodiversity areas, and in general, in the Americas, is valuable and useful - important to retain.   | Thank you for the encouraging comment  |
| Thomas Brooks                                 | 7         | 214       | 7         | 250       | Paragraph 5 of the Executive Summary, on protected area coverage of key biodiversity areas, and in general, in the Americas, is valuable and useful - important to retain.   | Thank you for the encouraging comment  |
| The Biodiversity Indicators Partnership (BIP) | 6         | 215       | 7         | 227       | Paragraph 3 of the Executive Summary, on extinction risk in the Americas, is valuable and useful - important to retain.  | Thank you for the encouraging comment  |

| Reviewer Name          | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|------------------------|-----------|-----------|-----------|-----------|--|--|
| Thomas Brooks          | 6         | 215       | 7         | 227       | Paragraph 3 of the Executive Summary, on extinction risk in the Americas, is valuable and useful - important to retain.  | Thank you for the encouraging comment  |
| André Mader            | 6         | 215       | 7         | 227       | Is this about terrestrial species only?  | It also includes marine and freshwater species   |
| Andrea Larissa Boesing | 7         | 224       | 7         | 225       | What does it mean by 'problematic species'?  | Invasive and other problematic species, genes and diseases' is a technical term from the IUCN Red List threats classification. Problematic species have unknown origin. A reference has been added to the figure caption along with a clarification in the text. |
| Andrea Larissa Boesing | 7         | 229       | 7         | 239       | I know that is very hard to obtain some numbers, but I'm pretty sure you already have it. I just think it to substantial saying 'many sharks' or 'highest number'. I think that it would be great to have some percentages in the brief summaries. | The following sentences have been added: "declines of between 20-80% from unfished conditions" and "with as many as 32% of chondrichthyes considered endangered or locally extinct in some regions"  |
| Co-chairs              | 7         | 229       |           |           | Suggest to move paragraph starting in 229 soon after the one starting in 183.  | This sentence has been completely edited in the current version  |
| Cristobal Diaz         | 7         | 229       | 7         | 239       | I suggest to mention the problems with coral reefs in the Caribbean and their bleaching, and the campaign and accords among countries with the protection of Caribbean Sea. .  | The text has been modified following reviewer's suggestion   |
| Cristobal Diaz         | 7         | 241       | 8         | 254       | I propose to write in short something about the situation on terrestrial protected areas   | We appreciate the reviewer's comment but we haven't been able to understand the full meaning of this comment.  |

| Reviewer Name           | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|-------------------------|-----------|-----------|-----------|-----------|--|---|
| André Mader             | 7         | 241       | 8         | 254       | Marine protected areas are not discussed in the text   | Marine protected areas were partially discussed in the text. We have expanded this information in the current version |
| Andrea Larissa Boesing  | 7         | 244       | 7         | 246       | shall you say this 25% correspond majority to Amazon and that protected areas establishment are not proportional for each biome?   | This 25 % corresponds to the whole continent. Amazon's protected areas represent about 12% of South America.          |
| E. Arguedas y C. Roldán | 7         | 246       | 7         | 247       | it is necessary a clarification because is not possible to judge this fact without put into a general context  | A clarification has been added to the text following reviewer's suggestion  |
| Cristobal Diaz          | 7         | 246       | 7         | 247       | I suggest to change the idea in: ".....to the contrary, South America Mesoamerica and the Caribbean have lagged behind North America in terms of marine protection (well established) (Section 3.2.5) - Why is centered in marine protection and not in the all protected areas? where in the same point 3.2.5(specifically 3.2.5.2) is written - " Over the past few decades, there has been an increase in both the number of protected areas and the amount of land covered throughout the Americas region. In North America number of protected areas has almost tripled, and in the Caribbean it has almost doubled " page 49 | The key point has been changed to reflect the main text   |
| Elise Belle             |           | 248       |           | 349       | First sentence should be in bold characters.   | The sentence has been edited following reviewer's suggestion  |
| Stuart Butchart         | 7         | 249       |           |           | Change emphasis: protected area coverage is pretty low - see Butchart et al. (2012 PLoS ONE)   | The text has been changed following reviewer's suggestion   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---|-----------|-----------|-----------|-----------|--|---|
| The Biodiversity Indicators Partnership (BIP) | 7         | 249       | 7         | 249       | Recommend changing "with more than" to "but still only". The current wording makes it sound as if this is a success, but protected area coverage of only 1 in 6 important sites is pretty weak - see Butchart et al. (2012 PLoS ONE <a href="http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529">http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529</a> ) for why safeguard of important sites is essential. | The text has been changed following reviewer's suggestion                             |
| Thomas Brooks                                 | 7         | 249       | 7         | 249       | Recommend changing "with more than" to "but still only". The current wording makes it sound as if this is a success, but protected area coverage of only 1 in 6 important sites is pretty weak - see Butchart et al. (2012 PLoS ONE <a href="http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529">http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529</a> ) for why safeguard of important sites is essential. | The text has been changed following reviewer's suggestion                             |
| juan comerma                                  | 8         | 251       | 8         | 254       | there is no mention of the protection of mountain ranges . It is quite important mostly of watersheds for water production, it covers large areas  |   |
| WWF Mexico                                    | 8         | 256       | 8         | 272       | There should be information on: The perspective of pollution (plastics and microplastics, as well as fertilizers fueling Harmful Algae Blooms) from urban areas, rural areas (lacking of proper garbage dump areas) and agriculture to the sea is missing. Those are current issues of concern at international level and the relevance of pollution paths from land to sea (hydrologic basins) is clear.  | These kind of information corresponds to drivers and have been included in Chapter 4. |
| Cristobal Diaz                                | 8         | 257       | 8         | 257       | I suggest to include ecosystems in the following manner: "...constitutes both a threat to biodiversity and ecosystemsand..."   | The sentence has been been rewritten following reviewer's suggestion                  |
| Elise Belle                                   | 8         | 269       | 8         | 269       | "and could be threatened."   | The sentence has been corrected following reviewer's suggestion                       |
| Margarita N. Lavidés                          | 8         | 270       | 8         | 270       | Correct: "threated" to threatened  | The sentence has been corrected following reviewer's suggestion                       |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|---------------------------|-----------|-----------|-----------|-----------|--|--|
| Volpedo, Alejandra Vanina | 8         | 273       | 8         | 279       | Eutrophication not only due to the contribution of agricultural production, also establishments that pose intensive systems of rearing (feed lots) behave like Struts pollution sources providing nutrients, organics to water bodies. Other sources are wastewater of small rural populations who do not have sanitation. All this increases eutrophication processes that are common in the shallow bodies of waters of the temperate zones in the region.   | This falls under the domain of Chapter 4   |
| Elise Belle               |           | 275       |           | 275       | "while Phosphorus (P) loading come mainly"   | The text has been changed following reviewer's suggestion  |
| Cristobal Diaz            | 8         | 278       | 8         | 279       | I propose include wetlands in: Environmental problems associated with eutrophication in coastal seas, wetlands and lakes have increased  | This falls under the domain of Chapter 4   |
| Co-chairs                 | 8         | 282       | 11        | 361       | there is substantial overlap in the information presented between these findings of changes in biodiversity by biome.unit of analysis, and the large section on Direct Drivers in Chapter 4. with both chapters pressed for space the repetition is unnecessary and should be sorted out. The presentation here seems easy to follow, appears balanced by Subgrion and Biome type, and captures the changes in biodiversity fairly completely. It is premature to contrast the Key Findings of one chapter with the main body of another chapter, but at this point it would seem more effective have the biodiversity consequences of habitat conversion in Chapter 3, and greatly condense them in Chpater 4, allowing chapter to focus more on the drivers as drivers, and what causes them to show the trends that appear. | We appreciate reviewer's suggestion. The overlap was addressed during the TAM and is avoided as much possible in agreement by CLAs and Co-chairs |
| Elise Belle               | 9         | 302       | 9         | 302       | "mediterranean biomes are other strongly"  | This sentence has been completely edited in the current version  |
| Elise Belle               |           | 304       |           | 304       | "Cerrado and 50% of South American"  | This sentence has been completely edited in the current version  |



| Reviewer Name                  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|--------------------------------|-----------|-----------|-----------|-----------|--|---|
| Diana Patricia Alvarado-Solano | 10        | 312       | 10        | 313       | In Colombia, there is six wetlands of international importance. However, these wetlands has been facing many environmental impacts related with socioeconomic activities. (Pinilla. 2010. An index of limnological conditions for urban wetlands of Bogota´ city, Colombia. Ecological Indicators. (10): 848–856. doi:10.1016/j.ecolind.2010.01.006; <a href="http://www.aida-americas.org/blog/six-colombian-wetlands-of-global-importance">http://www.aida-americas.org/blog/six-colombian-wetlands-of-global-importance</a> ; <a href="https://rsis.ramsar.org/ris-search/?f[0]=regionCountry_en_ss%3AColombia&amp;pagetab=0">https://rsis.ramsar.org/ris-search/?f[0]=regionCountry_en_ss%3AColombia&amp;pagetab=0</a> ; Ricaute et al. 2017. Future impacts of drivers of change on wetland ecosystem services in Colombia. Global Environmental Change. (44): 158-169. ) | This falls under the domain of Chapter 4                              |
| Elizabeth Hess                 | 9         | 313       | 9         | 315       | Would be good to include that Canada contains 25% of the world's wetlands. It contains 1.29 million km(2). See ( <a href="http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&amp;n=69E2D25B-1">http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&amp;n=69E2D25B-1</a> )   |   |
| Elise Belle                    | 10        | 325       | 10        | 328       | Italics for '(established but incomplete)'.  | All "established but incomplete" terms have been formatted in italics |
| Carlos Alfredo Joly            | 10        | 334       |           |           | ... and pesticides, while in Brazil Amazonian wetland forests are being contaminated Malm, O. 1998. Gold Mining as a Source of Mercury Exposure in the Brazilian Amazon. Environmental Research 77: 73—78<br>Hacon, S.; Barrocas, P.R.G.; Vasconcellos, A.C.S.; Barcellos, C.; Wasserman, J.C.; Campos, R.C.; Ribeiro, C. & Azevedo-Carlioni, F.B. 2008. An overview of mercury contamination research in the Amazon basin with an emphasis on Brazil. Cad. Saúde Pública 24(7) <a href="http://dx.doi.org/10.1590/S0102-311X2008000700003">http://dx.doi.org/10.1590/S0102-311X2008000700003</a><br>World Health Organization/WHO 2014. Mercury Poisoning in the Brazilian Amazon   | This falls under the domain of Chapter 4                              |

| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------|-----------|-----------|-----------|-----------|---|---|
| Elise Belle         |           | 338       |           | 338       | Which small mammal?   | This sentence has been completely edited in the current version   |
| Cristobal Diaz      | 10        | 340       | 10        | 342       | Please I suggest add - " Climate change is expected to alter the distributions of many terrestrial, freshwater and marine species,precipitation patterns, temperatures,and land suitability for agriculture ,mainly in the Caribbean islands(inconclusive), but predictions are often uncertain | The sentence has been rewritten following reviewer's suggestion   |
| Carlos Alfredo Joly | 11        | 364       |           |           | ....for both terrestrial, FRESH WATER and marine.....   | This sentence has been completely edited in the current version   |
| André Mader         | 12        | 376       | 12        | 387       | This paragraph seems like unnecessary overlap with chapter 2. I think that the first sentence of the following paragraph is sufficient to link to ecosystem services  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Daniel P Faith      |           | 377       |           | 379       | This is good but can make a more explicit reference to ncp18:"Human dependence on biodiversity may be direct through valuing maintenance of options provided by biodiversity, and through..."   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|--|---|
| Virginia Meléndez Ramírez | 12        | 377       | 12        | 377       | This chapter could begin with an introduction like the others  | The chapter includes an introduction.   |
| Co-chairs                 | 12        | 378       | 12        | 403       | Although the subject matter covered here is exactly the subject matter of Chapter 2, This degree of repetition in the Introduction is reasonable. It is important to the informaiton in the chapter, and probably can't be condensed more and stay meaningful. The only change really necessary is an explicit pointer to Chapter 2 for more detail on these issues.   | The chapter has been thoroughly edited to reduce redundancy. Also, pointers have been included to Chapter 2 |
| Carlos Alfredo Joly       | 12        | 380       |           |           | ..and biodiversity are ESSENTIAL to human....  | The sentence has been edited following reviewer's suggestion  |
| Daniel P Faith            |           | 388       |           | 388       | the claim that "The spectrum of ecosystem services that provides benefits to mankind will depend heavily on it biodiversity content" seems doubtful – mostecosystem services (e.g. from crop lands) depend on removing biodiversity (note the Cardinale et al work creates a paradox....all that local support form biodiversity in the case studies ignores the fact that typically the natural biodiverity was removed! for discussion see faith 2017 reference) | This sentence has been deleted and the section revised  |
| Daniel P Faith            |           | 399       |           | 400       | "Biodiversity loss substantially decreases ecosystem functioning, ecosystem stability, and ecosystem..." This section should be broadened to include ncp 18  | A limited number of references to NCPs have been included in this chapter to avoid overlap with chapter 2   |

| Reviewer Name   | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| Thomas Brooks   | 12        | 399       | 12        | 399       | Good use of text on biodiversity hotspots - important to retain. Add citation: Mittermeier et al. (2004) Hotspots Revisited. CEMEX, Mexico City, Mexico. In addition, Brooks et al. (2006 Science <a href="http://science.sciencemag.org/content/313/5783/58">http://science.sciencemag.org/content/313/5783/58</a> ) could be used as a reference for the overall discussion of global conservation priorities here. | Thank you for the encouraging comment. Citation has been added to the text.                                     |
| María Santiago Jiménez, Ricardo Contreras Osorio, Wolke Tobón, David Loreto | 12        | 399       | 13        | 411       | This chapter leaves out some of the outstanding cultural diversity in the Americas and its strong linkage to biodiversity. More ecosystems managed by indigenous and local communities or through traditional use should be included in this section.   | The chapter has been substantially reorganized  |
| André Mader   | 12        | 399       | 13        | 411       | Perhaps this paragraph could be included under background rather than under a separate heading, and could replace the first paragraph there (which I suggested removing), because this one links chapters 2 and 3 without going too much into chapter 2 territory.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.     |
| Carlos Alfredo Joly   | 12        | 400       |           |           | ....for Conservation Priority. IT MUST ALSO MENTION THE HIGH DIVERSITY OF ETHNICAL GROUPS - SOCIODIVERSITY THAT HAS INCREASED EVEN MORE AMERICAS BIODIVERSITY DEVELOPING DIFFERENT VARIETIES OF PLANTS LIKE POTATOE, MANIHOT, PEANUTS, MAIZE, etc.....  | Cultural diversity and crop diversity aspects have now been included  |
| André Mader   | 12        | 400       | 12        | 406       | What was the net result of these investigations?  | We appreciate reviewer's comment, but unfortunately we were unable to decipher the full meaning of this comment |

| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------|-----------|-----------|-----------|-----------|---|---|
| Carlos Alfredo Joly | 12        | 411       |           |           | There are a lot of studie on freshwater biodiversity and ecosystem services that MUST be included here.   | Ecosystem services and NCPs are assessed in Chapter 2   |
| André Mader         | 13        | 412       | 15        | 482       | These sections provide quite a lot of detail that might be more effective if shortened and simplified. They could be merged under "background" (perhaps that title could change to reflect the merge). Also, there is very little here that is specifically relevant to the Americas. Reduction of generic text, and a few more regional examples (as in lines 460-465) could help. | The text has been condensed and reorganized. Also, we have attempted to focus only on aspects related to the Americas |
| Daniel P Faith      |           | 483       |           | 486       | re "Overview of status and trends of biodiversity components in subregions across the Americas - this goes on to talk about Ecosystem functions and Carbon cycling and energy fluxes Change the titl ass this is not about biodiversity? Maybe instead say "Trends of ecosystems"?  | This part has been changed according to reviewer's suggestion   |
| Viglizzo, Ernesto   | 15        | 483       | 19        | 585       | To assess the effect of carbon and water on ecosystem service provision, see the meta-analysis and review work of Viglizzo, E.F., Jobbágy, E.G., Ricard M.F., Paruelo, J.M. (2016). Partition of some key regulating services in terrestrial ecosystems: Meta-analysis and review. Science of the Total Environment 562: 47–60.   | Ecosystem services and NCPs are assessed in Chapter 2   |
| André Mader         | 15        | 485       | 20        | 612       | Caribbean is mentioned only under "3.2.1.2. Water cycle and regulation"; and it is not always clear where Mesoamerica is referred to, as it is not named anywhere.  | We have done our best to be systematic in mentioning each subregion   |

| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------|-----------|-----------|-----------|-----------|--|---|
| Ederson A Zanetti   | 15        | 490       | 15        | 490       | There should be a subchapter dedicated to species specific relationships to biodiversity and ecosystem services  | We appreciate reviewer's suggestion. That would indeed be very interesting, but we are unable to include it due to space constraints. |
| Patricia S. Vazquez | 15        | 490       | 17        | 527       | Figure 3.1a It would be interesting to express beyond the aforementioned citations, what kind of images are used, sensors, software, algorithms, to obtain both NDVI and C stocks, in order to obtain a fast and accurate interpretation of the results.   | The suggested information goes beyond the scope of the Chapter  |
| Carlos Alfredo Joly | 15        | 491       |           |           | Considering the size and the importance it has in carbon cycling the Brazilian Etanos production for fuel MUST be mentioned in this item. See, for example, the SCOPE report available at <a href="http://bioenfapesp.org/scopebioenergy/images/chapters/bioenergy_sustainability_scope.pdf">http://bioenfapesp.org/scopebioenergy/images/chapters/bioenergy_sustainability_scope.pdf</a>  | This does not fall in the domain of Chapter 3.  |
| Co-chairs           | 15        | 492       | 20        | 620       | Although the section on ecosystem services is generally well done, the ocean, coasts and marine systems generally are almost invisible in the text. They do contribute to these ecosystem services and warrant a bit greater inclusion, or else at least a separate subsection on the ecosystem services from marine and coastal systems. We think the latter would be suboptimal but better than being largely left out altogether.   | NCPs are synthesized for all units of analysis now.   |
| Co-chairs           | 12        | 495       | 13        | 416       | This line of argumentation that the relationships examined in detail for terrestrial primary producers can broadly generalize to higher trophic levels on land and to marine systems is generally clear and well crafted. I think it is an adequate basis for the following sections of 3.1 to focus on the terrestrial plant studies. However the following subsections of 3.1 would be stronger if each subsection ended with a sentence simply stating something like "Studies that have show similar relationships for higher trophic levels | This section has been edited accordingly.   |

| Reviewer Name     | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|-------------------|-----------|-----------|-----------|-----------|---|---|
| Ederson A Zanetti | 15        | 497       | 15        | 497       | There should be HWP consumption within the carbon cycle   | This is not the domain of Chapter 3   |
| Elise Belle       | 16        | 505       | 16        | 505       | "in established and regrowth forests in the Americas"   | This sentence has completely been edited in the current version.  |
| Viglizzo, Ernesto | 16        | 512       | 16        | 513       | Regarding "Recent decreases in deforestation rates in Amazonia have favored net atmospheric C sequestration..." I suggest inserting the recent reference of Zaring et al (2016), which have estimated carbon emission trends due to deforestation in various countries of the world. Zarin et al. (2016). Can carbon emissions from tropical deforestation drop by 50% in 5 years? Global Change Biology 22; 1336-1347. | The suggested reference has been added to the text  |
| André Mader       | 17        | 528       | 17        | 536       | Is this paragraph relevant enough to biodiversity and nature's contributions to people?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Co-chairs         | 17        | 529       |           |           | I think you mean combustion, not consumption.   | The text has been edited as required  |

| Reviewer Name   | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|-----------------|-----------|-----------|-----------|-----------|--|--|
| Co-chairs       | 17        | 529       | 17        | 548       | This is well presented but there needs to be some effort to coordinate with the part of Chapter 4 on climate drivers. Not sure which information is best places in which chapter, and that can largely be up to the authors to settle (taking into account the applicable comments from all reviewers). What matters it that the two Chapters avoid repetition and together tell a consistent and coherent story. Comment also applies to section 3.2.1.2 that follows                       | Coordination with Chapter 4 has been increased and impacts of climate drivers on future trends have been removed. However, we do discuss current impacts of climate change and recent trends |
| Giselda Durigan | 17        | 532       | 17        | 532       | I would be more objective here: "several studies show negative impacts of tree plantation on water cycling..."   | This sentence has been deleted in the current version  |
| André Mader     | 17        | 541       | 19        | 585       | No status and trends sub-headings here?  | The text has been edited as required   |
| Juan Comerma    | 17        | 542       | 17        | 542       | How can evapotranspiration reduce runoff ?, ok recharge  | Unfortunately we do not understand this comment  |
| Cristobal Diaz  | 17        | 543       | 17        | 545       | I don't remember very well but the term evapotranspiration (ET) is composed by two terms: evaporation from soils, water bodies and others; and transpiration originated from plants. I suggest if it is considered appropriated by the Lead Authors the revision of: " ET depends on the physical structure of vegetation and characteristics of individual species, particularly rooting depth, which control plant access to water in water-limited environments (Le Maitre et al. 2015) " | This section has been rewritten.   |



| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------|-----------|-----------|-----------|-----------|---|---|
| Carlos Alfredo Joly | 17        | 549       |           |           | In this item the construction of large dams in almost all river systems of South America, that changes completely the water cycle and regulation in vast regions like the Amazon must be included.  | This is the domain of Chapter 4                                       |
| Giselda Durigan     | 17        | 550       | 17        | 550       | It should be more clear if it was: "Water is strongly regulated by rain interception by the canopies and transpiration, that together form the evapotranspiration (ET)." Savenije (2004) recommends we never use the term Evapotranspiration since rain interception and transpiration are completely different processes in the ecosystem. While interception is loss, transpiration is water used by plants. (Source: Savenije HHG. 2004 The importance of interception and why we should delete the term           | This section has been revised and shortened due to space constraints. |
| Giselda Durigan     | 17        | 551       | 17        | 551       | It should be: "ET depends on the physical structure of vegetation, especially LAI (Giambelluca et al 2009) and tree biomass (Honda & Durigan 2016)." (Sources: (1) Giambelluca, T. W., Scholz, F. G., Bucci, S. J., Meinzer, F. C., Goldstein, G., Hoffmann, W. A., ... & Buchert, M. P. (2009). Evapotranspiration and energy balance of Brazilian savannas with contrasting tree density. Agricultural and Forest Meteorology, 149(8), 1365-1376. (2) Honda, F. A. & Durigan, G. (2016). Woody encroachment and its | This section has been revised and shortened.                          |
| Giselda Durigan     | 17        | 557       | 17        | 557       | Ochoa-Tocachi et al., 2016 can be cited also here, cinsé they concluded that "Vegetation cover, especially the percentage of tall flora, affects negatively water yield"  | This sentence has been edited in the current version                  |
| Cristobal Diaz      | 18        | 559       | 18        | 561       | I suggest to revise the expression: "In North America and the Caribbean, ~85% of annual water consumption goes to agriculture, ~100 km <sup>3</sup> for irrigation and just 3 km <sup>3</sup> for livestock ". Because for example in Cuba agricultural sector include livestock consume , the 60% of annual water consumption  | This sentence has been deleted in the current version                 |

| Reviewer Name   | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|-----------------|-----------|-----------|-----------|-----------|---|---|
| Giselda Durigan | 18        | 570       | 18        | 577       | Here, it is convenient to cite Jackson et al (2005), that analyzing data from 600 data sets verified that "Tree plantations decreased stream flow by 227 millimeters per year globally (52%), with 13% of streams drying completely for at least 1 year."   | Reference has been added to the text following reviewer's suggestion  |
| Cristobal Diaz  | 18        | 570       | 18        | 580       | I think that is interesting to include the effects of deforestation and water in the slopes and the landslides.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Cristobal Diaz  | 18        | 577       | 18        | 580       | " The impact of changing climate on streamflow is complex, and most large rivers worldwide have not changed measurably. However, 10 of the 14 large rivers that show increasing discharge are in the Americas, mostly corresponding with places where rainfall has measurably increased (Milliman et al., 2008) ". This affirmation would be reaffirmed with other references more at the present time because the drought has affected a great part of the Americas including the Amazon and Guarani groundwater                   | We appreciate reviewer's comment but we haven't been able to find additional references for this statement. |
| Giselda Durigan | 18        | 578       | 18        | 578       | Most studies about this are based on modelling (like Lawrence and Vandecar, 2015). Actualy, this sentence should be: "Reduced atmospheric moisture due to reduced ET can reduce rainfall, but this influence has been demonstrated only at very large scales (Trenberth 1999; Ellison et al 2012)". (Sources: (1)Trenberth, K.E. 1999. Atmospheric moisture recycling: Role of advection and local evaporation. Journal of Climate 12: 1368-1381. (2) (Ellison, D., Futter, M.N. & Bishop, K. 2012. On the forest cover-water yield | This section has been revised and shortened due to space constraints.                                       |
| Giselda Durigan | 18        | 578       | 18        | 580       | Actually, the higher the biomass, the lower the water yield. Besides, Higher ET will turn into rain elsewhere, so that the expected positive relationship of increasing biomas to increase rain does not work at the scale of a watershed.  | This section has been revised and shortened due to space constraints.                                       |

| Reviewer Name                  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|--------------------------------|-----------|-----------|-----------|-----------|--|---|
| Elise Belle                    | 19        | 582       | 19        | 584       | Review the whole sentence of the figure legend.  | The sentence has been edited in the current version   |
| Margarita N. Lavides           | 18        | 584       | 18        | 585       | Indeed, this statement should be clarified. This runs contrary to a huge set of literature on the links between deforestation and floods, whether small or large scale.  | The sentence has been edited in the current version   |
| Diana Patricia Alvarado-Solano | 20        | 593       | 20        | 599       | In the Northern part of South America, the biggest coastal lagunar complex "Ciénaga Grande de Santa Marta" is one example of degradation caused by several antropogenic factors ( <a href="http://www.marbef.org/wiki/Cienaga_Grande_de_Santa_Marta">http://www.marbef.org/wiki/Cienaga_Grande_de_Santa_Marta</a> ; Sandra P. Vilarity , José A. González , Berta Martín-López & Carlos Montes (2011) Relationships between hydrological regime and ecosystem services supply in a Caribbean coastal wetland: a social-ecological approach | This is the domain of Chapter 4   |
| Co-chairs                      | 19        | 595       | 20        | 607       | the authors should consider reordering this paragraph. One reading it seemed like a presentation of statistics on nutrient cycling that woud only be very meaningful to specialists in the field. Then the very last sentence gives all the reasons why a broad reange of biodiversity and ecosystem services will be affected by these changes. The paragraph might get more attention from readers if it started off with a pithy sentence on why nutriet cycling is important to BES, and then giving the statistics in the following   | The whole paragraph has been edited in the current version  |
| Brenda McAfee                  | 20        | 610       | 20        | 612       | Further clarity on the details of this challenge would be helpful here.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

| Reviewer Name     | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|-------------------|-----------|-----------|-----------|-----------|--|---|
| Co-chairs         | 20        | 618       |           |           | Is the readership generally going to know what a "catch crop" is?  | The following text has been added for clarification: "fast-growing crop that is grown between successive plantings of a main crop"  |
| Elizabeth Hess    | 20        | 623       | 20        | 623       | Not clear intent of wording "is compared by close to open vegetation"  | After checking for the right wording we have agreed to "is composed by"   |
| Ederson A Zanetti | 20        | 623       | 20        | 632       | There should not be such a clear linking between crops and deforestation, there should be reference to trees used and forest cover. For example, north america has the largest consumption of wood products and does not have deforestation, while south america has some of the lowest wood consumption rates and large deforestation   | There is no clear association in the text about which is the driver of deforestation. We only present data of land use (mostly agriculture and urban areas), and then data on land cover (main topic of this section). Wood |
| Leticia Pina      | 20        | 627       | 20        | 627       | The figures in this line correspond to the information from Keenan et al., 2015 (Table 2: The trend in forest area from 1990 to 2015 by sub region), nevertheless, please to take into account that grouping of countries in sub regions are different. For instance, Mexico belongs to North America sub region in FRA, while in IPBES classification is under Mesoamerica. Also please kindly note that Excel file sent to request information has Argentina and Bolivia under Caribbean countries | We replaced the figure from Keenan et al. (2015) by one of Hansen et al. (2013), which does not present data by country. The lines in panel b were based on data from the IPBES Task Group on Indicators, including this    |
| Leticia Pina      | 20        | 628       | 20        | 628       | It is not clear the source of the data of natural forest   | We have acknowledge the data source in the new version: Global Forest Watch ( <a href="http://www.globalforestwatch.org/map">http://www.globalforestwatch.org/map</a> ).  |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
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| Elise Belle              | 22        | 629       | 22        | 629       | "Total forest trends by sub-region."   | Forest trends by sub-regions are presented in Figure 3.3b.   |
| Leticia Pina             | 20        | 629       | 20        | 629       | It is not clear the source of the data of planted areas  | We have acknowledge the data source in the new version: Global Forest Watch ( <a href="http://www.globalforestwatch.org/map">http://www.globalforestwatch.org/map</a> ). |
| Elise Belle              | 23        | 655       | 23        | 657       | Table still to be fully completed.   | The table has been completed in the current version  |
| United States Government | 23        | 655       | 23        | 655       | Table rows for mammals and Reptiles & Amphibians are blank. Remove these rows if you have no data. | The table has been edited and completed in the current version   |
| Elise Belle              | 24        | 658       | 26        | 692       | Size of maps (and resolution) could be increased.  | Map resolution has been increased in the current version. Moreover, additional work will be done by external technicians.  |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---|-----------|-----------|-----------|-----------|--|---|
| Daniel P Faith                                |           | 663       |           | 663       | here there is reference to local/community PD; perhaps in this section global PD and NCP18 also can be referred to   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| M. en C. Jessica Bravo Cadena                 | 22        | 663       | 22        | 663       | Could use the data from Buckley et al. (2010) and Buckley and Jetz, 2007, <a href="https://www.cbd.int/gbo/gbo3/">https://www.cbd.int/gbo/gbo3/</a> or <a href="http://www.iucnredlist.org/">http://www.iucnredlist.org/</a> to complete the Table 3. 1. Species richness for different taxonomic groups by subregion.   | Reference for Buckley & Jetz (2007) has been added to the text  |
| Virginia Meléndez Ramírez                     | 22        | 663       | 22        | 663       | Figure 3.1 is incomplete missing data.   | Figure 3.1 has been edited and completed in the current version   |
| The Biodiversity Indicators Partnership (BIP) | 23        | 666       | 23        | 670       | The sources for Fig 3.4 should come from the publications that have compiled the underlying data, not from this mix of subsequent academic analyses. The base citation for mammals (Panel 1.2) is Schipper et al. (2008 Science <a href="http://science.sciencemag.org/content/322/5899/225">http://science.sciencemag.org/content/322/5899/225</a> Fig 1A) and that for amphibians (Panel 1.4) is Stuart et al. (2008 Threatened Amphibians of the World. Lynx, Barcelona, Spain, Figure 1). Brooks et al. (2004 BioScience <a href="https://academic.oup.com/bioscience/article/54/12/1081-">https://academic.oup.com/bioscience/article/54/12/1081-</a> | References used to build Figure 3.4 have been carefully checked in the current version.                     |
| Thomas Brooks                                 | 23        | 666       | 23        | 670       | The sources for Fig 3.4 should come from the publications that have compiled the underlying data, not from this mix of subsequent academic analyses. The base citation for mammals (Panel 1.2) is Schipper et al. (2008 Science <a href="http://science.sciencemag.org/content/322/5899/225">http://science.sciencemag.org/content/322/5899/225</a> Fig 1A) and that for amphibians (Panel 1.4) is Stuart et al. (2008 Threatened Amphibians of the World. Lynx, Barcelona, Spain, Figure 1). Brooks et al. (2004 BioScience <a href="https://academic.oup.com/bioscience/article/54/12/1081-">https://academic.oup.com/bioscience/article/54/12/1081-</a> | References used to build Figure 3.4 have been carefully checked in the current version.                     |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|---|---|
| Thomas Brooks             | 23        | 666       | 23        | 670       | It would be very useful to complement these maps of alpha-diversity with equivalent maps of beta-diversity. The key source is McKnight et al. (2007 PLoS Biology <a href="http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050272">http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050272</a> ), who provide such maps for amphibians, mammals, and birds.                       | We appreciate reviewer's suggestion. That would indeed be very interesting, but we are unable to include it due to space constraints. |
| Virginia Meléndez Ramírez | 23        | 666       | 23        | 666       | Figure 3.4 is incomplete, some figures lack the meaning of color in the maps.   | Figure 3.4 has been edited in the current version and legend colors added accordingly.  |
| André Mader               | 25        | 680       | 25        | 690       | Is it possible to include a figure/map on functional diversity?   | Maps of plant functional diversity have been added to the text  |
| Andrea Larissa Boesing    | 24        | 688       | 24        | 698       | Given that FD is very subjective and will depend of the group and functional traits chosen to analyse, I don't see what this paragraph is bringing in terms of important information. I would suggest to talk only about PD - which sometimes might be a surrogate for FD, and the importance to maintain PD and consequently more diversified lineages, with a large range of functional traits and ecosystem functioning. | This paragraph has been synthesized.  |
| Thomas Brooks             | 24        | 688       | 24        | 698       | This paragraph could be illustrated by Fig 1a from Rapacchiolo et al. (2017 Global Ecology & Biogeography <a href="http://onlinelibrary.wiley.com/doi/10.1111/geb.12612/full">http://onlinelibrary.wiley.com/doi/10.1111/geb.12612/full</a> ), which shows geographical distribution of median body mass (a measure of functional diversity) across all Western Hemisphere tetrapod vertebrates.                            | We appreciate reviewer's suggestion. That would indeed be very interesting, but we are unable to include it due to space constraints. |
| Elise Belle               | 26        | 693       | 26        | 693       | "Measures of phylogenetic diversity (PD)"   | The wording of the sentence has been changed to clarify.  |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|---------------------------|-----------|-----------|-----------|-----------|--|--|
| André Mader               | 26        | 701       | 33        | 798       | The amount of information and space dedicated to alien invasive species seems disproportionate to the preceding sections. Also, although the diversity and distribution of these species may be relevant here, the discussion on invasion and its effects seems to belong in chapter 4.  | Chapter 3 deals with status whereas Chapter 4 is concerned about drivers (not effects).                              |
| André Mader               | 26        | 701       | 33        | 798       | The distinction between alien and invasive, and the relationship between the two terms, is a bit unclear in this section.  | The definitions of the concepts have been clarified. Moreover, precise definitions will be available in the glossary |
| Thomas Brooks             | 25        | 710       | 32        | 810       | I think that this section 3.2.2.3 on Patterns and trends in alien and invasive species is very well done - informative and well-written.   | Thank you for the encouraging comment  |
| Virginia Meléndez Ramírez | 25        | 716       | 25        | 716       | Include <i>Apis mellifera</i> , is an introduced species for America   | This corresponds to a long known invasion. In the current document we are interested in more recent trends           |
| Andrea Larissa Boesing    | 26        | 719       | 26        | 724       | Would be nice to include an example of impact caused by dogs and cats given that these are the most closely human-related invasive species? North America has many information about the impact of cats on biodiversity (especially birds), and in Brazil current advancements are being done studying dog invasion in native remnants and its impact on biodiversity. | This corresponds to long known invasions. In the current document we are interested in more recent trends            |
| Elise Belle               | 27        | 720       | 27        | 722       | Species names should be in italics. It would perhaps be good to add a separate column for positive/negative impacts.   | Column separation and italics have now been included.  |



| Reviewer Name                  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|--------------------------------|-----------|-----------|-----------|-----------|--|--|
| André Mader                    | 27        | 720       | 27        | 721       | This figure Table) is quite limited in geographic scope. Something similar that covers the whole region, or a larger part of it, could be preferable.  | More examples from other areas have been proportionally included into the table.   |
| United States Government       | 27        | 721       | 27        | 721       | Table 3.2 - last line- American Mink "preys on" not "predates."  | The sentence has been corrected  |
| Diana Patricia Alvarado-Solano | 27        | 721       | 27        | 722       | In Colombia, in the Páramos ecosystem (tropical alpine ecosystems) there has been reported the presence and invasion of <i>Ulex europaeus</i> , which is now another threat for the native species present in there, that could lead to the deterioration of the main ecosystem service (water provision and supply) and the survival of endemic species such as <i>Speletia</i> sp. ( <a href="https://www.researchgate.net/publication/260479286_Estrategias_para_el_control_manejo_y_restauracion_de_areas_invasidas_por_retamo_espino">https://www.researchgate.net/publication/260479286_Estrategias_para_e</a> | Invasive species are treated for terrestrial ecosystems as a whole now rather than focusing on subregions due to space constraints |
| Carlos Alfredo Joly            | 26        | 730       |           |           | In Table 3.2 the water hyacinth ( <i>Eichhornia crassipes</i> ) should be included. See VILLAMAGNA, A.M. & MURPHY, B.R. 2010. Ecological and socio-economic impacts of invasive water hyacinth ( <i>Eichhornia crassipes</i> ): a review. <i>Freshwater Biology</i> (2010) 55, 282–298 doi:10.1111/j.1365-2427.2009.02294.x  | The mentioned species belongs to the fresh water section   |
| Virginia Meléndez Ramírez      | 26        | 731       | 26        | 731       | Add <i>A. mellifera</i> in table 3.2, is an introduced species for America   | This corresponds to a long known invasion. In the current document we are interested in more recent trends                         |
| Brenda McAfee                  | 29        | 751       | 29        | 752       | As invasive alien species are the second most common threat associated with species extinction, it is preferable to choose a different expression than "trail behind" as it suggests a negative trend when fewer species introduction should be considered a positive trend.   | This part has now been deleted due to space constraints the lack of detail for subregions  |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|--------------------------|-----------|-----------|-----------|-----------|--|--|
| United States Government | 30        | 759       | 30        | 759       | Definition of "alien saturation" would be helpful.   | The definition has been added to the text  |
| Elise Belle              | 31        | 778       | 31        | 781       | Is this part of the figure legend? Last sentence is incomplete.  | The sentence has been corrected  |
| Carlos Alfredo Joly      | 30        | 781       |           |           | Although IABIN has been finished the Alien Invasive Species Databank is still on line and should be included here<br><a href="http://www.institutohorus.org.br/iabin/i3n/">http://www.institutohorus.org.br/iabin/i3n/</a>   | References to the Alien Invasive Species Databank have been included to the text                 |
| United States Government | 31        | 783       | 31        | 783       | "lacking" may not be the best term in this context; consider another term, perhaps "not present."  | The sentence has been corrected  |
| Elise Belle              | 32        | 788       | 32        | 789       | I do not understand the figure legend.   | The sentence has been corrected  |
| Andrea Larissa Boesing   | 30        | 790       | 30        | 794       | Bold text to be unbold and to joined with next paragraph   | The sentence has been corrected  |
| Andrea Larissa Boesing   | 30        | 790       | 30        | 794       | Are you providing the list of invasive species? It would be super nice.  | Although it would be interesting to presen this list, we had to omit it due to space constraints |
| United States Government | 33        | 797       | 33        | 798       | Consider including the location of the Great Lakes (e.g., "in north central United States") in the first sentence. The second paragraph, starting with "Efforts are underway...," is not directly relevant to the title of the Box; consider revising. Further, the second sentence of the second paragraph starting with "No new non-native species..." seems to contradict the graph, which shows increases over time; please clarify the time frame for this sentence | The mentioned sentences have been deleted from the current version.                              |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|--|---|
| United States Government  | 33        | 797       | 33        | 797       | Please define AIS before using it. Further, the term "less flashy" is not clear. Does that indicate flow is less variable? Please clarify.   | The term "less flashy" has been removed from the current version  |
| André Mader               | 34        | 799       |           |           | Could there not also be a section equivalent to the land use section under 3.2.2? Some of this information seems to already be included under 3.2.3.1 (see paragraph from line 810-817). Patterns of diversity for taxonomic groups. It could simply be moved under a different heading.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Andrea Larissa Boesing    | 31        | 804       | 31        | 804       | scientific name in italics   | The text has been has been thoroughly checked to format all latin names in italics                          |
| Virginia Meléndez Ramírez | 32        | 810       | 32        | 810       | In the foot of figure correct non-indigenous by non-native.  | Figure caption has been edited following reviewer's suggestion  |
| DESP/Sbio/MMA             | 33        | 813       | 34        | 848       | The session 3.2.3.1, on the patterns of diversity for taxonomic groups of freshwater species, limits its discussion to fish species and fisheries and aquaculture. Additionally, the references cited are generic for the region e some of them are out of data (e.g. information on the species used for aquaculture in South America is from 1998). Finally, the term "catch" in the last paragraph of the session (l. 843) is not used for aquaculture. The correct term is aquaculture production. | This section has been revised   |

| Reviewer Name                  | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------------|-----------|-----------|-----------|-----------|---|---|
| Diana Patricia Alvarado-Solano | 34        | 826       | 34        | 828       | Publications related with this topic can be found in:<br><a href="http://www.redalyc.org/home.oa">http://www.redalyc.org/home.oa</a> (keywords: species loss freshwater ecosystems tropic)  | The sentence has been edited in the current version   |
| Elizabeth Hess                 | 33        | 834       | 33        | 834       | There is reference to North America's freshwater fishes (including Mexico). Recall earlier that Mexico is not included in N. America for this assessment. Is it now included and if so, why. This is not clear and confusing.   | This section has been revised. Mexico is not part of North America in the assessment  |
| André Mader                    | 35        | 835       | 35        | 859       | It seems like the contents of this section that discuss invasion and its dynamics should be captured in chapter 4, and not here.  | Invasive species, when they are drivers of change in biodiversity are treated in chapter change. When the focus is on the invasive species themselves, as a component of biodiversity, they are treated in Chapter 3. |
| Diana Patricia Alvarado-Solano | 35        | 836       | 35        | 840       | For a comprehensive review of this issue in Colombia: Gracia, A., Medellín-Mora, J., Gil-Agudelo, D.L. y V. Puentes (eds.). 2011. Guía de las especies introducidas marinas y costeras de Colombia. INVEMAR, Serie de Publicaciones Especiales No. 23. Ministerio de Ambiente y Desarrollo Sostenible. Bogotá, Colombia. 136 p.; Gutiérrez, F. de P., C. A. Lasso, M. P. Baptiste, P. Sánchez-Duarte y A. M. Díaz. (Eds). 2012. VI. Catálogo de la biodiversidad acuática exótica y tras-plantada en Colombia: moluscos, crustáceos, peces, anfibios, reptiles y aves. Serie Editorial Recursos Hidrobiológicos y Pesqueros Continentales de Colombia. Instituto de Investigación de los Recursos Biológicos Alexander von Humboldt (IAvH). Bogotá, D. C., Colombia, 335 pp.; Galván-Guevara et al. 2011. EXOTIC FAUNA AND TRANSPLANTED FAUNA WITH MORE REPRESENTATIVENESS IN COLOMBIA. Rev.Colombiana Cienc.Anim.3(1):167-179. | The invasive species are treated as a whole for marine systems rather than focusing on individual countries or subregions   |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------|-----------|-----------|-----------|-----------|---|---|
| Co-chairs                | 33        | 837       | 33        | 837       | This paragraph is about extinctoin rates. Therefore this sentence will be read as say the habitat losses have resulted in the extinction of 200 species in Mexico springs and streams. However, as written the sentence could also mean that 200 species have been negatively affected by the loss of the streams and springs, but may persist in other places. To avoid this ambiguity, check the reference (which is not in the reference list, establish which meaning is correct, and modify to be clear whether 200 species have | The whole paragraph has been edited in the current version  |
| Co-chairs                | 33        | 840       |           |           | Basically the same as the previous comment. Does "affected" mean gone extinct overall. Been locally extirpated, or just have had populatons greatly reduced. And have any species increased in abundance due to the alternation in water level regime?  | The wording has been edited for clarity.  |
| DESP/Sbio/MMA            | 33        | 843       | 34        | 848       | The impacts of the fisheries are underestimated in the whole session. Only in Brazil, XXX species had population decline due to commercial fisheries (in reference to the information given in the lines 846-847).  | We did not understand this comment.   |
| United States Government | 35        | 843       | 35        | 843       | It may be useful to also mention the National Invasive Species Council <a href="https://www.doi.gov/invasivespecies/">https://www.doi.gov/invasivespecies/</a> and/or the Aquatic Invasive Species Task Force <a href="https://www.anstaskforce.gov/default.php">https://www.anstaskforce.gov/default.php</a>   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Co-chairs                | 33        | 843       | 34        | 848       | cross-check this data on fisheries production with Chapter 2  | Cross-checking was completed.   |
| Co-chairs                | 34        | 845       | 34        | 846       | the phrasing may be misinterpreted by many readers. The relatively small freshwater commercial fisheries were displaced by recreational fisheries for the same species (usually) because the recreational fisheries had a wider base of public support (many potential sport fishers compared to many fewer commercial harvesters) and greater local economic impact (revenue of the guides, outfitters, and hospitality providers), but because the commercial fisheries were becoming unsuccessful or unprofitable.                 | The sentence has been edited in the current version   |

| Reviewer Name          | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|------------------------|-----------|-----------|-----------|-----------|--|---|
| Andrea Larissa Boesing | 34        | 849       | 34        | 873       | No trends are presented  | The whole section has been restructured.  |
| Carlos Alfredo Joly    | 34        | 849       |           |           | The problem of native invasive species must be mentioned in this item. In Brazil the introduction of Tucunare ( <i>Cichla</i> spp) native from the Amazon Basin in the Paraná Basin is causing MAJOR PROBLEMS . See Prioli and Sônia Maria Alves Pinto Prioli. 2011. Spar genetic analysis of two invasive species of <i>Cichla</i> (Tucunaré) (Perciformes: Cichlidae) in the Paraná river basin Acta Scientiarum 33(1) 79-85, 2011 DOI: 10.4025/actascibiolsci.v33i1.4855  | The invasive species are treated as a whole for marine systems rather than focusing on individual countrie or subregions, and individual species are treated only as examples   |
| Rolando Alfaro         | 34        | 850       | 850       | 854       | In Lake Titicaca, the greatest negative impact is overexploitation   | This information correspond to drivers and therefore should be discussed in the appropriate section   |
| Co-chairs              | 34        | 850       | 34        | 873       | There is a lot of informaiotn in Chpater 4 section on invasive species that could be used to strengthen this section of Chapter3, which currently reads an more anecdotal reporting of some specific cases that a complete treatment of freshwater invasive speceies in the Americas. This part of Chapter 3 is a more appropriate place for the information than in Chapter 4 (as in many other sections that overlap between the two Chapters) but this is one of the most apparent cases so far where the informaton in Chapter 4 may be more complete than the current treatment in Chapter 3. | Treatment of invasive species has been revised. Invasive species, when they are drivers of change in biodiversity are treated in chapter change. When the focus is on the invasive species themselves, as a component of biodiversity, they are treated in Chapter 3. |
| DESP/Sbio/MMA          | 34        | 855       | 34        | 873       | The seaweed <i>Caulerpa taxifolia</i> , the lionfish <i>Pterois volitans</i> , and the humpback grouper <i>Cromileptes altivelis</i> are marine species. We suggest a revision of the whole paragraph as it discusses freshwater invasive species.   | The issue raised by the reviewer has been properly addressed. The current version of the document does not include some of these references.  |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
|---------------------------|-----------|-----------|-----------|-----------|---|--|
| Elise Belle               | 36        | 868       | 36        | 869       | Spell out acronyms in figure legend.  | All figures have been checked for appropriate spelling in acronyms   |
| DESP/Sbio/MMA             | 34        | 875       | 42        | 1027      | The session 3.2.4.1. presents information only about mammals and sea turtles. It lacks information on other important taxonomic groups, such as fishes and marine invertebrates. Both groups are highly pressured by human activities, such as fishing. | A new section on Chondrichthyes has been added, as well as references to the later section on fish and invertebrates (fishery species).  |
| Co-chairs                 | 35        | 884       | 35        | 889       | This is a very nice Figure, but why just for SA. There are comprehensive databases, such as OBIS (housed at the IOC), where not only are Patricia's data filed, but comparable data from other subregions should be available as well.                  | This figure has been deleted in the current version.   |
| Virginia Meléndez Ramírez | 35        | 884       | 35        | 884       | In Figure 3.13, the meaning of acronyms is missing from the graph on the right.   | The meaning of the acronyms have been added to the text following reviewer's suggestion  |
| André Mader               | 37        | 889       | 42        | 1009      | I think you will may to justify dedicating this whole subsection to only mammals and sea turtles.   | The text in this section has been reduced based on the review editor's recommendation. We have also added a section on Chondrichthyes and have made clear reference to the fish and invertebrate section using different headings. |

| Reviewer Name          | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|------------------------|-----------|-----------|-----------|-----------|---|---|
| Pomerleau, C.          | 37        | 896       | 37        | 897       | Figure 3.14 - It appears strange to include polar bear on this figure when it is a single species. It could be included in the main text, but since this is a figure of species richness by orders of marine mammals, polar bear should be removed from this figure.  | Figure 3.14 was deleted in the Third Order Draft  |
| Elise Belle            | 37        | 897       | 39        | 909       | Increase size of text in the three figures.   | The size of the text in the Figures has been increased.                                 |
| Co-chairs              | 36        | 899       | 36        | 904       | Given that marine invertebrate biodiversity" actually included diversity even at the phylum level as well as all other taxonomic levels, I would have hoped to see somewhat more done to report at least the high-level patterns. There are efforts to maintain comprehensive databases like OBIS and CoML (Census of Marine Life) and I would encourage more effort to report at least a bit more about patterns of marine invertebrate diversity on the Americas coasts.  | More examples of marine invertebrate patterns have been added.                          |
| Andrea Larissa Boesing | 36        | 905       | 40        | 990       | This whole Marine mammals session has many subjective words which makes the understanding difficult and the English written is harsh to understand as well. Moreover, there is no flow in the text. I would consider to re-write this whole session. Many graphs and tables are presented, but basic information are not presented in the text. In Fig. 3.17 population status are given... Instead of saying 'some species are declining', would be super nice to include the % of species that are declining... | We agree with reviewer's comment and the text has been significantly reviewed.          |
| Andrea Larissa Boesing | 36        | 906       | 36        | 906       | The Americas are rich in marine mammals (see Figure 3. 14) for species richness in different taxonomic' - ?   | Figure 3.14 was deleted in the Third Order Draft  |
| Co-chairs              | 36        | 906       | 36        | 13        | Given the years or decades of the extinctions.  | The years of extinction have been added to the first paragraph of the Third Order Draft |



| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
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| Andrea Larissa Boesing                        | 36        | 907       | 36        | 907       | these' ? - what 'these' refers to?  | The sentence has been corrected.                               |
| Elise Belle                                   | 39        | 912       | 39        | 916       | Delete this paragraph (as I believe it relates to figure 3.17, where it is repeated in the figure legend).  | The paragraph has been deleted following reviewer's suggestion |
| Pomerleau, C.                                 | 39        | 914       | 39        | 916       | There are 19 distinct populations of polar bears in the world and the population trend is known for at least half of them. Please revise that sentence.   | The sentence has been corrected.                               |
| The Biodiversity Indicators Partnership (BIP) | 37        | 914       | 37        | 925       | Neat Figs 3.14 and 3.15 on marine mammals, and appropriate sources. Retain. In Figs, change "V" to "VU", "E" to "EN", "CE" to "CR", and "Extinct" to "EX" following the Red List Categories & Criteria ( <a href="https://portals.iucn.org/library/node/10315">https://portals.iucn.org/library/node/10315</a> Annex 2).                            | Figure 3.14 was deleted in the Third Order Draft               |
| Thomas Brooks                                 | 37        | 914       | 37        | 925       | Neat Figs 3.14 and 3.15 on marine mammals, and appropriate sources. Retain. In Figs, change "V" to "VU", "E" to "EN", "CE" to "CR", and "Extinct" to "EX" following the Red List Categories & Criteria ( <a href="https://portals.iucn.org/library/node/10315">https://portals.iucn.org/library/node/10315</a> Annex 2).                            | Figure 3.14 was deleted in the Third Order Draft               |
| Pomerleau, C.                                 | 39        | 924       | 39        | 924       | This sentence is not accurate. Revise that sentence on polar bear to reflect the state of knowledge on the various populations of polar bear. It is erroneous to write "its population" when there are 19 populations. Refer to : <a href="http://pbsg.npolar.no/en/status/status-table.html">http://pbsg.npolar.no/en/status/status-table.html</a> | The sentence has been revised to reflect multiple populations  |
| Pomerleau, C.                                 | 40        | 926       | 40        | 926       | Figure 3.17. Again, it is not appropriate to say "for each type of marine mammal". What is meant and shown here is more like a classification. Please reword.   | Figure caption has been reworded                               |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|---|-----------|-----------|-----------|-----------|--|--|
| The Biodiversity Indicators Partnership (BIP) | 38        | 939       | 38        | 939       | Good use of Doroff & Burdin (2015)   | Thank you for your encouraging comment.  |
| Thomas Brooks                                 | 38        | 939       | 38        | 939       | Good use of Doroff & Burdin (2015)   | Thank you for your encouraging comment.  |
| The Biodiversity Indicators Partnership (BIP) | 39        | 942       | 39        | 942       | Good use of Wiig et al. (2015)   | Thank you for your encouraging comment.  |
| Thomas Brooks                                 | 39        | 942       | 39        | 942       | Good use of Wiig et al. (2015)   | Thank you for your encouraging comment.  |
| Pomerleau, C.                                 | 40        | 948       | 40        | 948       | Explain what is the meaning of wild capture. Which southern resident killer whales? Specify if you mean southern ocean...otherwise it could be misinterpreted as there is a southern resident killer whale population in Canada (Southern Vancouver island)  | The sentence has been edited in the current version.   |
| Pomerleau, C.                                 | 40        | 948       | 40        | 955       | I strongly recommend that the authors of this section on marine mammals refer to a recent paper by Laidre et al. 2015 on the status and trends of marine mammals in the arctic and subarctic regions ( <a href="http://onlinelibrary.wiley.com/doi/10.1111/cobi.12474/full">http://onlinelibrary.wiley.com/doi/10.1111/cobi.12474/full</a> ) | The proposed reference is indeed interesting but outdated according to the 2016 citation we added from PBSG. Moreover, information on other Arctic species would favor Canada in <del>terms of content in front of the</del> |
| Pomerleau, C.                                 | 41        | 956       | 41        | 956       | In Figure 3.18. b, what is other (n=1)?  | This Figure was deleted from the Third Order Draft   |

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|--------------------------|-----------|-----------|-----------|-----------|---|--|
| Pomerleau, C.            | 41        | 963       | 41        | 963       | Previous anthropogenic impacts? Perhaps give some examples or specify which one (e.g., commercial whaling).   | An example of anthropogenic impacts (bycatch) has been added. Also, the whole text on threats has been revised   |
| Pomerleau, C.            | 41        | 965       | 41        | 966       | "Sirenians and large whales are particularly vulnerable to bycatch and other types of removals because of their limited rates of potential increase". Please develop and elaborate what is meant here. The sentence doesn't really fit with the rest of the paragraph.  | The paragraph has been edited and the terminology clarified  |
| Pomerleau, C.            | 41        | 976       | 41        | 977       | Add the latin name of each species of turtles to be consistent with previous sections.  | Latin names of species have been added.  |
| United States Government | 41        | 976       | 41        | 977       | Suggest deleting or rephrasing these sentences. The Wallace et al 2011 reference is dated and is no longer appropriate for determining the top sea turtle sub-populations at risk. The 2015 IUCN redlist assessment changed North Pacific loggerhead to Least Concern. Therefore, it is no longer accurate to characterize it as one of the "four of the ten most threatened and at-risk of extinction...." In fact, the entire ranking exercise would have to be re-done to get a more updated list. | Information regarding Wallace et al. 2011 has been deleted. Instead, we have summarized the information in the sea turtles Figure based on IUCN information.   |
| United States Government | 42        | 978       | 42        | 979       | These lines say all of those endangered are also in decline. Is that the status from Wallace 2011 or the current IUCN redlist status? Things have changed since 2011, so Wallace 2011 and figure 3.19 don't match-up. For instance, Wallace et al 2011 lists North Pacific loggerheads as most endangered but the graphic has them increasing and least concern. Please reconcile the sentence with the more recent information in the graphic.   | All of the trend information and threat status for the figure on sea turtles comes from IUCN, but the reviewer is correct that some of the text summarized Wallace et al. 2011. To resolve this, we have deleted references to Wallace 2011 and have just summarized IUCN information. |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
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| United States Government | 42        | 984       | 42        | 985       | Please delete the reference to ecosystem based fisheries management, as that does not align with the conservation and recovery of sea turtles in America. Rather, specific requirements in law have been instrumental, as many of the threats to sea turtles extend beyond fisheries issues, making comprehensive protection and species recovery among the only way gains have been made. | Reference to ecosystem based fishery management has been deleted |
| United States Government | 42        | 986       | 42        | 987       | Please correct this sentence. The defining of subpopulations in of itself does not lead to recovery. It is a tool managers use, but without important legal protections, like the U.S. Endangered Species Act, it would not have been possible to mitigate numerous threats (lighting, pollution, development, fisheries bycatch, etc.) to sea turtles.                                    | The sentence has been corrected following reviewer's suggestion. |
| WWF Mexico               | 40        | 988       | 40        |           | The vaquita ( <i>Phocoena sinus</i> ), a small porpoise . predicted to go extinct by 2022 (Taylor et al., 2016). Revise the date to be extint. With recent events might be sooner.   | The sentence has been corrected following reviewer's suggestion. |
| Elise Belle              | 42        | 989       | 42        | 989       | "for each species of sea turtle found"   | The sentence has been corrected following reviewer's suggestion. |
| United States Government | 42        | 989       | 42        | 989       | Recommend clarifying figure title to include a reference to sea turtles. For example, "IUCN population status for each sea turtle species."  | The title has been clarified following this suggested revision   |
| Pomerleau, C.            | 42        | 990       | 42        | 990       | The color for "least concern" appears beige and not yellow on Figure 3.19. Similarly, in the current version, there are no differences between CE and E as both are in red. I recommend utilizing more distinct colors (blue, green, yellow, red).   | Figure has been updated.   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| Carlos Alfredo Joly                           | 40        | 991       |           |           |   | -   |
| Cristobal Diaz                                | 43        | 1005      | 43        | 1006      | " Given high coastal diversity at low latitudes, this suggests that diversity in the future should increase outside of the tropics ". Please this affirmation is very strong and for this reason needs the references of where was extracted  | This sentence has been deleted in the current version   |
| The Biodiversity Indicators Partnership (BIP) | 41        | 1008      | 41        | 1009      | Neat Fig 3.19 on marine turtles, and appropriate sources. Retain, but change "V" to "VU", "E" to "EN", "CE" to "CR", following the Red List Categories & Criteria ( <a href="https://portals.iucn.org/library/node/10315">https://portals.iucn.org/library/node/10315</a> Annex 2). | Figure has been updated.  |
| Thomas Brooks                                 | 41        | 1008      | 41        | 1009      | Neat Fig 3.19 on marine turtles, and appropriate sources. Retain, but change "V" to "VU", "E" to "EN", "CE" to "CR", following the Red List Categories & Criteria ( <a href="https://portals.iucn.org/library/node/10315">https://portals.iucn.org/library/node/10315</a> Annex 2). | Figure has been updated.  |
| United States Government                      | 43        | 1011      | 43        | 1012      | As this sentence is about trends, it may flow better if this were moved down in the section. This would ensure the sections first present status before following with trends.  | This setence has been deleted in the current version.   |
| Daniel P Faith                                |           | 1050      |           | 1050      | Threatened species and protected areas and Threat status and temporal trends in threat status for taxonomic groups - In this section perhaps include PD NCP18 figs and references to link to NCP18  | Trends are treated in the synthesis figure (3.24). We have not included phylogenetic diversity in terms of trends, but we have included related patterns of terrestrial diversity (evolutionary distinctiveness, phylogenetic endemism and functional diversity), in addition to species richness, in Fig 3.4 |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| André Mader                                   | 44        | 1051      | 47        | 1104      | There is quite a lot of overlap between the information included here, and the discussions above on terrestrial, freshwater and marine biodiversity. It might enhance readability if these were reconciled. | We appreciate reviewer's suggestion. However, we would like to retain the text as it is now because threat status includes both marine and terrestrial ecosystems.  |
| Harald Pauli                                  | 45        | 1068      | 45        | 1075      | It surprises that the extinction risk among endemic species is lowest in SA. Is it because the overall number of endemic species is so high in SA? Which taxonomic groups are included in Fig. 3.21?        | Yes, that is correct. There are more than three times as many endemic species assessed in SA than MA, the next highest group. The taxonomic groups are those listed in the previous paragraph, as it is now acknowledged. |
| Stuart Butchart                               | 43        | 1069      |           |           | Retain Section 3.2.5.1 + Figures 3.21, 3.22, & 3.23 on extinction risk -these are useful  | The text has been retained.   |
| The Biodiversity Indicators Partnership (BIP) | 43        | 1069      | 46        | 1122      | Excellent text Section 3.2.5.1 + Figures 3.21, 3.22, & 3.23 on extinction risk in the Americas - very important to retain.  | The text has been retained.   |
| Thomas Brooks                                 | 43        | 1069      | 46        | 1122      | Excellent text Section 3.2.5.1 + Figures 3.21, 3.22, & 3.23 on extinction risk in the Americas - very important to retain.  | The text has been retained.   |
| Virginia Meléndez Ramírez                     | 43        | 1069      | 43        | 1069      | Add a table with the number of species to some extent threatened or extinct for different groups such as plants, vertebrates and invertebrates.   | We appreciate reviewer's comment but unfortunately we do not have this data.  |
| Elise Belle                                   | 45        | 1073      | 45        | 1073      | Delete 'species occurring' and 'species' on each line, and possibly spell out the subregion names instead.  | We have edited the figure labels accordingly  |
| Elise Belle                                   |           | 1074      |           | 1075      | "Extinction risk for species in the Americas [...] proportion of species in each IUCN Red List categories."   | Figure caption has been reworded as suggested   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
|---|-----------|-----------|-----------|-----------|---|--|
| Michael Hoffmann                              |           | 1074      |           | 1122      | It is good to see the material on status and trends in extinction risk (and Figs 3.21 - 3.23)   | The text has been retained.  |
| United States Government                      | 45        | 1074      | 45        | 1074      | Please clarify the abbreviations in the legend and the left axis of the figure, as it is currently unclear what they represent.   | Figure caption has been reworded as suggested  |
| Margarita N. Lavides                          |           | 1074      |           |           | While it is indicated here that groups assessed for IUCN extinction risk includes, among others, sharks and rays and selected bony fish groups e.g. groupers, parrotfish etc. (Brooks et al 2016) but these groups are not included in the recent trends report which includes mammals, birds, amphibians, cycads, corals only (Line 1094) It is important to include sharks and rays and selected bony fish for two reasons. First, certainly, <del>many of the threatened sharks, rays and selected bony fish occur also in the</del> | Sharks, rays, and bony fish groups are present in the data used for figure 3.21 because they are included in the comprehensively assessed groups of species. However, unfortunately they cannot be included in figure 3.23 |
| The Biodiversity Indicators Partnership (BIP) | 43        | 1075      | 43        | 1075      | Add citation to the data on which this section is based, <a href="http://www.iucnredlist.org">www.iucnredlist.org</a> . Already in the reference list as IUCN (2017).   | Recommended citation has been added to the text  |
| Thomas Brooks                                 | 43        | 1075      | 43        | 1075      | Add citation to the data on which this section is based, <a href="http://www.iucnredlist.org">www.iucnredlist.org</a> . Already in the reference list as IUCN (2017).   | Recommended citation has been added to the text  |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations                                       |
|---|-----------|-----------|-----------|-----------|---|--|
| Cristobal Diaz                                | 46        | 1081      | 46        | 1085      | The text : "According to this criterion, overall the extinction risk has increased over the last 23 years in the Americas, but again there are notable subregional differences (Figure 3. 22). The North America subregion has increased slightly, Mesoamerica has remained relatively steady, while the Caribbean and South American have declined fastest. Species in the Caribbean region are the least well-conserved, and are declining towards <del>extinction the fastest.</del> <i>would be sustained with one or more references</i> | Brooks et al., (2016) has been included to the text      |
| Elise Belle                                   | 46        | 1082      | 46        | 1085      | "The Red List Indices for the North America subregion have increased slightly, in Mesoamerica, it has remained [...], while in the Caribbean and South America it has declined fastest. [...] and are heading towards extinction."  | Brooks et al., (2015) has been included to the text      |
| The Biodiversity Indicators Partnership (BIP) | 44        | 1083      | 44        | 1084      | Add text to read "Inclusion of Data Deficient species for these groups as threatened could shift this percentage to as high as 34.7%; or conversely, if no Data Deficient species are threatened, this percentage could be as low as 21.2%."  | The suggested text has been added to the text            |
| Thomas Brooks                                 | 44        | 1083      | 44        | 1084      | Add text to read "Inclusion of Data Deficient species for these groups as threatened could shift this percentage to as high as 34.7%; or conversely, if no Data Deficient species are threatened, this percentage could be as low as 21.2%."  | The suggested text has been added to the text            |
| United States Government                      | 46        | 1083      | 46        | 1085      | The statement "the Caribbean and South American have declined fastest" is confusing. Is the extinction risk increasing the fastest, so that biodiversity is declining fastest, or is the risk declining? The final sentence implies the former. Please clarify.   | The wording of the sentence has been changed to clarify. |



| Reviewer Name                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
|-------------------------------|-----------|-----------|-----------|-----------|---|--|
| Daniel P Faith                |           | 1087      |           | 1088      | Figure 3. 22. Red List Indices of species survival for mammals, birds, amphibians, corals, and cycads five taxonomic groups, mostly vertebrates weighted by the fraction of each species' distribution occurring within each region/sub-region - this is good and for the PD imperilled tabulations/figs, we can similarly give credit taking into account overlaps   |  |
| Elise Belle                   |           | 1087      |           | 1088      | "corals, and cycads taxonomic groups, weighted by the fraction of"  | Figure caption has been edited and clarified as a result of several review comments                  |
| Virginia Meléndez Ramírez     | 44        | 1092      | 44        | 1092      | In Figure 321 complete the figure foot.   | Figure caption has been completed  |
| Co-chairs                     | 45        | 1093      | 45        | 1105      | Just a problem with phrasing. The first sentence has "increased" being term consistent with greater extinction risks in recent decades that earlier ones, but in the next two sentences, it is "decreased" that means greater extinction risk. I had to read the whole paragraph carefully three times to get the messages clear. A little playing with the text so "increase" and "decrease" have consistent meaning throughout the paragraph would improve readability. | Language has been changed throughout paragraph to clarify discussion of RLI in general               |
| Luis Ubaldo Castruita Esparza | 44        | 1094      | 45        | 1098      | There should be include the status of the recent trends for reptiles in study area  | Although it would be ideal to include reptiles, this group has not yet been comprehensively assessed |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---|-----------|-----------|-----------|-----------|--|---|
| André Mader                                   | 47        | 1105      |           |           | Are freshwater areas included under terrestrial?   | Yes, the mammals, birds and amphibians groups all include both terrestrial and freshwater groups. However, we have removed the term terrestrial from the caption to avoid confusion                         |
| Elise Belle                                   | 47        | 1106      | 47        | 1111      | References?  | The reference has been added to indicate data source directly in the caption  |
| Stuart Butchart                               | 45        | 1108      |           |           | Replace the sentence about Y axis and slope, with "Trends show how well each region's species are conserved relative to the maximum contribution to conservation of global biodiversity that each region could provide". This is more accurate given the weighting by the proportion of each species' global distribution within the region.   | Figure caption has been edited as suggested   |
| Elise Belle                                   | 47        | 1112      | 47        | 1113      | What is the reference? You could replace with more recent data: "In the Americas protected areas currently cover 17.4% (6,957,037 km2) of land and inland waters and 12.9% (4,622,930 km2) of coastal and marine areas under national jurisdiction (UNEP-WCMC and IUCN, 2017)."<br>Reference: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: <a href="http://www.protectedplanet.net">www.protectedplanet.net</a> . | Reference has been added to indicate the data source as synthesized by Brooks et al., 2016. Although it would be ideal to use present data, it is necessary to keep the same source to guarantee consistent |
| The Biodiversity Indicators Partnership (BIP) | 45        | 1113      | 45        | 1113      | Add mention of the fact that the pattern for these three regions mirrors that globally, cite Maxwell et al. (2016) Nature DOI: 10.1038/536143a.  | The suggested text and reference have been added to the main body.  |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------|-----------|-----------|-----------|-----------|---|---|
| Thomas Brooks            | 45        | 1113      | 45        | 1113      | Add mention of the fact that the pattern for these three regions mirrors that globally, cite Maxwell et al. (2016) Nature DOI: 10.1038/536143a.   | The suggested text and reference have been added to the main body.  |
| Elise Belle              |           | 1114      |           | 1117      | Reference? Cite reference instead of link to website with PDF.  | We whole document has been checked to correct reference citations.  |
| Andrea Larissa Boesing   | 45        | 1115      | 45        | 1115      | Again: what is a problematic species?   | Invasive and other problematic species, genes and diseases' is a technical term from the IUCN Red List threats classification. Problematic species have unknown origin. A reference has been added to the figure caption. |
| Elise Belle              | 47        | 1118      | 48        | 1120      | "Caribbean, in 2008, more than 700 MPAs [...]. In 2008, fully protected sites only covered 0.3% of coastal"<br>Note that we could provide more up-to-date data if needed.   | This text has been removed given that it has been repeatedly flagged by multiple reviewers and does not allow comprehensive and effective comparison across all sub-regions. Moreover, by removing it we reduce the word  |
| United States Government | 48        | 1119      | 48        | 1120      | The 2008 reference regarding protected area seems out-of-date given recent protections in North America; recommend updating using more recent references, perhaps <a href="https://www.greateratlantic.fisheries.noaa.gov/stories/2016/december/13_deep-sea-coral-protection_area.html">https://www.greateratlantic.fisheries.noaa.gov/stories/2016/december/13_deep-sea-coral-protection_area.html</a> . | This text has been removed given that it has been repeatedly flagged by multiple reviewers and does not allow comprehensive and effective comparison across all sub-regions. Moreover, by removing it we reduce the word  |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---|-----------|-----------|-----------|-----------|--|---|
| Virginia Meléndez Ramírez                     | 46        | 1123      | 46        | 1123      | 3.2.5.2. Protected areas. Include a table with the ANPs by region, complete table 3.4. Mexico see: <a href="http://www.conanp.gob.mx/regionales/">http://www.conanp.gob.mx/regionales/</a>   | Protected areas are treated at the level of the subregion and summarized in Fig. 3.32                         |
| Elise Belle                                   |           | 1124      |           | 1124      | Update with most recent data:<br>Americas region: "protected are coverage is 17.4% (6,957,037 km2) for terrestrial areas and inland waters, and 12.9% (4,622,930 km2) for coastal and marine areas under national jurisdiction.<br>Caribbean: 17.5% (41,247 km2) terrestrial, 5.7% (195,940 km2) marine<br>Mesoamerica: 17.5% (435,223 km2), 2.0% (105,441 km2) marine<br>North America: 11.3% (2,197,497 km2), 25.0% (3,574,951 km2) marine | Although it would be ideal to use present data, we must keep the same source to allow consistent calculations |
| Elise Belle                                   |           | 1126      |           | 1126      | Reference? Jenkins and Joppa (2009)?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Elise Belle                                   |           | 1130      |           | 1131      | "increase protection level (Pliscoff and Fuentes-Castillo, 2011)."   | The referece has been moved to clarify the sentence.  |
| The Biodiversity Indicators Partnership (BIP) | 46        | 1130      | 46        | 1130      | Add a citation to the data on which this section is based, <a href="http://www.protectedplanet.net">www.protectedplanet.net</a>  | The reference has been added as suggested   |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
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| Thomas Brooks | 46        | 1130      | 46        | 1130      | Add a citation to the data on which this section is based, <a href="http://www.protectedplanet.net">www.protectedplanet.net</a>   | The reference has been added as suggested   |
| Harald Pauli  | 48        | 1132      | 49        | 1136      | How 'montane grassland and shrubland' and 'tundra' is defined/distinguished in Table 3.4: the first only in the Neotropical realm, the latter on in the North American?   | This table has been edited and largely modified in the current version  |
| Co-chairs     | 46        | 1133      | 46        | 1134      | This does accurately report the conclusion in the source. However, that is based on the assumption that the only way to "protect ocean ecosystems" is with totally exclusionary MPAs. This premise has been widely challenged on two counts. First, there is ample evidence that marine areas can be used sustainably without destroying ocean ecosystems, just as terrestrial ecosystem can be used sustainably, without biodiversity and ecosystem <del>services being destroyed. On land it is not assumed that all ecosystems not</del> | This is an excellent point, and we have deleted the language that had been added to our text referencing 'hope'.  |
| André Mader   | 49        | 1134      |           |           | "Greenland is not included"? Greenland is supposed to be covered by the Americas IPBES assessment.  | The IPBES boundaries for the regional assessments were changed from the initial published scoping documents ( <a href="http://www.ipbes.net/sites/default/files/downloads/pdf/IPBES_3_18_Annex%20V_Deliverable_2h">http://www.ipbes.net/sites/default/files/downloads/pdf/IPBES_3_18_Annex%20V_Deliverable_2h</a> ) |
| Elise Belle   | 49        | 1138      | 49        | 1140      | Over which time periods? References? Please clarify.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |

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| Pomerleau, C. | 49        | 1141      | 49        | 1141      | Indicate how many MPAs for South America.                |   |
| Elise Belle   |           | 1143      |           | 1143      | "increasing recognition by governments"                  | The text has been changed as suggested  |
| Elise Belle   |           | 1147      |           | 1147      | "used for human wellbeing. Indigenous reserves in Latin" | The text has been changed as suggested  |
| Elise Belle   |           | 1150      |           | 1152      | Sentence still to be completed.                          | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| WWF Mexico    | 47        | 1150      | 47        |           | Table 3. 4. Include Ilands                               | Table 3.4 (now 3.6) has largely been edited in the current version.   |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|---|---|
| Virginia Meléndez Ramírez | 47        | 1150      | 47        | 1150      | Table 3.4 is better biogeographic regions: Neotropical and neotropical for America  | Table 3.4 (now 3.6) has largely been edited in the current version.   |
| Cristobal Diaz            | 49        | 1150      | 49        | 1151      | The data would be completed.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle               |           | 1153      |           | 1154      | "in temperate biomes, particularly in the Temperate forest biome"   | This sentence has been deleted in the current version   |
| Elise Belle               |           | 1158      |           | 1158      | "a situation that is repeated to a greater"   | This sentence has been deleted in the current version   |
| MAYDS- Argentina          | 50        | 1161      | 51        | 1167      | Se debe ser cauteloso al utilizar los datos de Allienace for Zero Extinction (AZE) sobre sitios AZE ya que esta ong tiene poca o nula presencia en varios países de la región de Sudamérica, por lo que este aspecto puede llevar a inferencias incorrectas sobre el estado de conservación de la biodiversidad de la región. por ejemplo, como se ve en este enlace, en Argentina hay solo tres sitios AZE:<br><a href="http://www.arcgis.com/home/webmap/viewer.html?webmap=4ecca6a29b">http://www.arcgis.com/home/webmap/viewer.html?webmap=4ecca6a29b</a> | We have tried to be cautious and this data is based on a cited published paper: Brooks, et al., 2016.       |

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|-------------------|-----------|-----------|-----------|-----------|---|---|
| Elise Belle       | 50        | 1162      | 50        | 1163      | Delete sentence 'Very detailed Informatino [...] is wanting.'   | The sentence has been deleted as suggested  |
| Cristobal Diaz    | 50        | 1168      | 50        | 1175      | This text need references and the same with Figures   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Gilles Seutin/PCA | 50        | 1170      | 50        | 1175      | See comment below for further explanation. Proposed amended text: Very important for maintenance of viable populations of species, ecosystems and ecological processes is the degree to which protected areas are connected over the landscape. Methods for assessing connectedness for various ecological attributes and at different scales are in development (e.g., Santini et al 2015, GEO BON 2015, Saura et al 2017). One indicator, the Protected Area Connectedness Index (REFERENCE), suggests that connectedness has | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle       |           | 1171      |           | 1173      | Reference?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle       |           | 1174      |           | 1174      | "degree of connectedness in some countries (e.g.)"  | This sentence has been deleted in the current version   |



| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| Elise Belle                                   |           | 1176      |           | 1176      | Make text bigger in figures.  | Figures's text has been edited in the current version. Also, additional work on Figures will be developed by specialized technicians. |
| Stuart Butchart                               | 48        | 1178      |           |           | The paragraph on KBA coverage and Figs 3.25a-c are useful, but better to show error bars with shading. Note that 3.25d was generated by the IPBES TSU and they have agreed that this should now be dropped as its use was not authorised by the data providers and it was calculated incorrectly.   | This figure has largely been edited in the current version  |
| The Biodiversity Indicators Partnership (BIP) | 48        | 1178      | 48        | 1178      | Add a sentence to start this paragraph reading something like "While these increases in acerage are noteworthy, they risk perverse outcomes of establishment of protected areas in places that are large and cheap but unimportant. It is therefore essential to complement them with measures of safeguard of important sites." A key paper supporting the first point is Barnes et al. (2015 Nature <a href="http://www.nature.com/nature/journal/v526/n7572/full/526195a.html">http://www.nature.com/nature/journal/v526/n7572/full/526195a.html</a> ) | The text and the reference have been added following reviewer's suggestion  |
| The Biodiversity Indicators Partnership (BIP) | 48        | 1178      | 48        | 1178      | Add a citation to the data on which this section is based, <a href="http://www.keybiodiversityareas.org">www.keybiodiversityareas.org</a>   | The text and the reference have been added following reviewer's suggestion  |
| The Biodiversity Indicators Partnership (BIP) | 48        | 1178      | 49        | 1185      | This paragraph on protected area coverage of key biodiversity areas in the Americas is very important, as is the associated Fig 3.25a, 3.25b, and 3.25c - essential to retain.  | The text and the reference have been added following reviewer's suggestion  |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|---|---|
| Thomas Brooks | 48        | 1178      | 48        | 1178      | Add a sentence to start this paragraph reading something like "While these increases in acerage are noteworthy, they risk perverse outcomes of establishment of protected areas in places that are large and cheap but unimportant. It is therefore essential to complement them with measures of safeguard of important sites." A key paper supporting the first point is Barnes et al. (2015 Nature <a href="http://www.nature.com/nature/journal/v526/n7572/full/526195a.html">http://www.nature.com/nature/journal/v526/n7572/full/526195a.html</a> ) | The text and the reference have been added following reviewer's suggestion                                  |
| Thomas Brooks | 48        | 1178      | 48        | 1178      | Add a citation to the data on which this section is based, <a href="http://www.keybiodiversityareas.org">www.keybiodiversityareas.org</a>   | The text and the reference have been added following reviewer's suggestion                                  |
| Thomas Brooks | 48        | 1178      | 49        | 1185      | This paragraph on protected area coverage of key biodiversity areas in the Americas is very important, as is the associated Fig 3.25a, 3.25b, and 3.25c - essential to retain.  | The text has been retained.   |
| Elise Belle   | 51        | 1179      | 51        | 1179      | Add reference to figure legend.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle   |           | 1180      |           | 1182      | "North America and South America, respectively." Reference?   | The text has been edited in the current version   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| Stuart Butchart                               | 48        | 1180      |           |           | insert "and other Key Biodiversity Areas identified through hotspot profiles support by CEPF" after Ricketts et al. And cite <a href="http://www.keybiodiversityareas.org">www.keybiodiversityareas.org</a> .                 | The text and the reference have been added following reviewer's suggestion  |
| André Mader                                   | 51        | 1184      | 51        | 1188      | This sentence seems not to make sense - I think there is just a word or two missing somewhere.  | The text has been edited in the current version   |
| Elise Belle                                   |           | 1186      |           | 1186      | "2016), some unprotected areas harbour the highest"   | The text has been edited in the current version   |
| The Biodiversity Indicators Partnership (BIP) | 49        | 1186      | 49        | 1193      | I could not find any published source for this paragraph, and the corresponding Fig 3.26 is unintelligible as presented. Recommend deleting this paragraph and figure unless published documentation can be sourced for this. | Based on multiple comments from multiple reviewers, we have deleted this paragraph as well as the accompanying figure 3.26. |
| Thomas Brooks                                 | 49        | 1186      | 49        | 1193      | I could not find any published source for this paragraph, and the corresponding Fig 3.26 is unintelligible as presented. Recommend deleting this paragraph and figure unless published documentation can be sourced for this. | Based on multiple comments from multiple reviewers, we have deleted this paragraph as well as the accompanying figure 3.26. |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|---|---|
| Co-chairs     | 49        | 1189      | 49        | 1191      | The "connectedness" index will not be familiar to many readers, even if the concept of connectedness is known to them. A sentence or two on what cases the index to increase or decrease would be helpful. For example, does the large decrease over time in Canada reflect an increase in the numbers of barriers or threats to animal movements between protected areas (a real reduction in the protection given to populations), an increase in the information available about the areas around the protected areas (so it | Based on multiple comments from multiple reviewers, we have deleted this paragraph as well as the accompanying figure 3.26. Also, a clarification has now been added to the text. |
| Elise Belle   |           | 1190      |           | 1190      | Any more recent reference?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Elise Belle   |           | 1190      |           | 1191      | "In 2005, the Central American System of Protected Areas (SICAP) included 554 protected areas"  | The text has been edited in the current version   |
| Elise Belle   |           | 1192      |           | 1193      | "By contrast, in 2010, only 0.4% [...] was protected and 7% of [...]South America was protected"  | The text has been edited in the current version   |
| Elise Belle   | 51        | 1194      | 52        | 1195      | "However, in 2009, the percentage coverage in protected areas was only 2.3% [...] Montane forest was protected"   | The text has been edited in the current version   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| The Biodiversity Indicators Partnership (BIP) | 49        | 1194      | 49        | 1197      | Fig 3.25a, 3.25b, and 3.25c showing the growth in protected area coverage of key biodiversity areas across the Americas and its subregions is very important - essential to retain. However the fourth panel of the figure 3.25d is unintelligible and unreferenced. Delete, unless it can be properly sourced and explained. | Figure 3.25d has been deleted as suggested  |
| Thomas Brooks                                 | 49        | 1194      | 49        | 1197      | Fig 3.25a, 3.25b, and 3.25c showing the growth in protected area coverage of key biodiversity areas across the Americas and its subregions is very important - essential to retain. However the fourth panel of the figure 3.25d is unintelligible and unreferenced. Delete, unless it can be properly sourced and explained. | Figure 3.25d has been deleted as suggested  |
| Elise Belle                                   | 52        | 1198      | 52        | 1198      | "the continent, with less than 1% of land area protected in Catinga"  | The text has been edited in the current version   |
| The Biodiversity Indicators Partnership (BIP) | 50        | 1198      | 50        | 1200      | I could not find any published source for Fig 3.26, and it is unintelligible as presented. Recommend deleting this figure unless published documentation can be sourced for this.   | Based on multiple comments from multiple reviewers, we have deleted this paragraph as well as the accompanying figure 3.26. |
| Thomas Brooks                                 | 50        | 1198      | 50        | 1200      | I could not find any published source for Fig 3.26, and it is unintelligible as presented. Recommend deleting this figure unless published documentation can be sourced for this.   | Based on multiple comments from multiple reviewers, we have deleted this paragraph as well as the accompanying figure 3.26. |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------|-----------|-----------|-----------|-----------|---|---|
| Elise Belle              |           | 1200      |           | 1201      | "In 2005, only over 2% of of the outstanding rich Brazilian Cerrado was protected"  | The text has been edited in the current version   |
| André Mader              | 52        | 1203      |           |           | There is no need to include the word "anthropogenic" here - it is redundant   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader              | 52        | 1203      | 60        | 1442      | Why separate the sections on urban and agricultural systems from the status and trends of natural systems? Could they be a separate sub-section: 3.3. Status and trends of anthropogenic systems? I'm not sure they belong under "Overview of status and trends of biodiversity components" |   |
| André Mader              | 52        | 1205      | 52        | 1211      | Some of the publications referenced here are not the original sources of the information  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| United States Government | 52        | 1214      | 52        | 1215      | "and involve the world's largest socioeconomic inequities" is confusing in this context; consider elaborating to provide clear connections to biodiversity in urban areas or deleting mention.  | The text has been edited in the current version   |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
|---------------------------|-----------|-----------|-----------|-----------|--|--|
| DESP/Sbio/MMA             | 50        | 1215      | 50        | 1219      | The numbers given on the protection of the Caatinga and Cerrado biomes are far below from the Brazilian official numbers. According to the National Database for Protected Areas/ Brazilian Ministry of the Environment (Cadastro Nacional de Unidades de Conservação - CNUC, updated on February 7th, 2017), 9.2% of the Atlantic Forest, 8.3% of the Cerrado biome, and 7.6% of the Caatinga biome are protected. Regarding the Atlantic rainforest in Brazil, 9.2% of the total land cover of the biome (1 117 571                | Protected areas are treated at the level of the subregion for marine and terrestrial systems, rather than for individual countries. The data are from UNEP-WCMC, IUCN 2017.                                    |
| Co-chairs                 | 51        | 1220      |           |           | Given the informative detail about the variation of coverage of terrestrial biomes and areas of special biodiversity conservation needs, at least a couple sentences on similar aspects of marine area protection would be appropriate here; perhaps proportion of coral reefs, of mangrove forests, and of the biodiversity-rich estuarine habitats would be possible, and would be highly policy relevant.   | Protected areas are treated at the level of the subregion for marine and terrestrial systems. We do not attempt to treat them based on individual biome or ecosystem types.                                    |
| Virginia Meléndez Ramírez | 51        | 1220      | 51        | 1220      | Add paragraph with a new modality of ANP in Mexico, areas voluntarily intended for conservation. At present there are a total of 381 certified areas in 20 states of the country that represent more than 408,639.83 hectares and in them participate, among others, 11 ethnic groups involving about 78,836 people: <a href="http://www.gob.mx/conanp/acciones-y-programas/areas-destinadas-voluntariamente-a-la-conservacion">http://www.gob.mx/conanp/acciones-y-programas/areas-destinadas-voluntariamente-a-la-conservacion</a> | A section has been added on cultural diversity and indigenous groups. Protected areas are treated at the level of the subregion, rather than for individual countries. The data are from UNEP-WCMC, IUCN 2017. |
| Grant Moir                | 51        | 1221      | 56        | 1363      | Below I have placed general comments that may pertain to this chapter; and/or others. I have not had a chance to review all of the chapters in detail, only briefly, but believe the comments reflect, in part, the type of efforts and challenges, in part, that are typical of communities working on and dealing with RE: BES related issues. There may be more to offer, in addition to below, with further familiarization of the reports etc.  | Understood; we appreciate your comments very much.   |
| Virginia Meléndez Ramírez | 51        | 1222      | 51        | 1222      | Figure 3.27, the projected urban population information is in Cap. 2., can be related to this chapter (Pag. 56, line 1444).  | The chapters have been cross-checked   |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------|-----------|-----------|-----------|-----------|---|---|
| United States Government | 52        | 1225      | 52        | 1125      | Many readers may not know the location of the "Twin Cities;" consider including the country when referencing cities. For example, "Twin Cities, Minneapolis and St. Paul, U.S."   | The text has been edited in the current version   |
| Andrea Larissa Boesing   | 52        | 1230      | 52        | 1255      | Maybe it would be nice to say something about population persistence or dynamics of these species recorded in urban areas? Indeed, there is a considerable number of species that occasionally are recorded within cities. For birds for example, there are very punctual occurrences sometimes related to migration routes or even because some day-trip movements in function of some pulse resources. But it doesn't mean that these species might persist or establish a population in these areas. | Although the reviewers raises an interesting topic, we have decided to avoid adding extra information due to space constraints. |
| Co-chairs                | 52        | 1252      |           |           | Just not clear what "consequently" refers to. IS the evidence for multiple community assembly processes just the immediately previous sentence (increase in introduced species and greater homogeneity of communities), or the whole paragraph. Expand the sentence to clarify.   | The text has been edited in the current version, and "consequently" has been changed to "Moreover".                             |
| Co-chairs                | 53        | 1273      |           | box 3.2   | Informative figure but needs a caption, especially the right figure on botanical gardens. What do the colours of the symbols mean, and what do the numbers inside them mean?  | A caption has been added to Figure.   |



| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|--|---|
| Co-chairs     | 54        | 1296      |           |           | I think you mean "now", not "no"                               | The text has been edited in the current version   |
| André Mader   | 56        | 1305      |           |           | Future trends discussed for the first time. Why here suddenly? | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle   | 56        | 1310      | 56        | 1310      | Which commonalities?   | This term has been deleted in the current version   |
| Elise Belle   |           | 1313      |           | 1314      | "within 25 km of its protected areas"                          | The text has been edited as required  |
| Elise Belle   |           | 1321      |           | 1322      | "planning across the Americas (Muller et al."                  | The text has been edited in the current version   |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|--|---|
| Co-chairs     | 54        | 1340      |           |           | Two points in the sentence require clarification. First, many readers will not know what "fractal spatial distribution" means, and second, is the "high variation in the proportion ..." variation within individual urban areas (as a general trait of most or all urban areas) or high variation between urban areas (large differences in the diversity of different urban areas. I think the former is meant, but the latter meaning is consistent with how "high variation ..." is used in many other subsections of this chapter - such as line 1342 just below..try to clarify both points. | The text has been edited in the current version to address reviewer's concerns                              |
| André Mader   | 57        | 1343      |           |           | There is no need to include the word "anthropogenic" here - it is redundant  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| DESP/Sbio/MMA | 55        | 1352      | 55        | 1352      | The city name is São Paulo, not Sao Pablo.   | The text has been edited in the current version   |
| Co-chairs     | 55        | 1357      | 56        | 1363      | A very reasonable summary, but there is no mention of the degree to which knowledge of urban biodiversity - incomplete though it may be - is used in urban planning. Although the topic is more appropriate for development in Chapter 6 on policy options, it would seem useful to set the stage here for such a discussion later. If there is a review of how many urban areas currently take biodiversity into account in urban planning, or at least a comment here that such efforts are also in early stages of development, that would be a useful small addition.                          | This is not the domain of Chapter 3   |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|--|---|
| Virginia Meléndez Ramírez | 55        | 1358      | 55        | 1358      | Biodiversity in urban areas, some works: <a href="http://www.ieb-chile.cl/uploads/publicaciones/-1_Pauchard&amp;Barbosa_2013_Ch_28_Urban_Global_Assessment.pdf">http://www.ieb-chile.cl/uploads/publicaciones/-1_Pauchard&amp;Barbosa_2013_Ch_28_Urban_Global_Assessment.pdf</a> , <a href="https://link.springer.com/content/pdf/10.1007/978-94-007-7088-1_3.pdf">https://link.springer.com/content/pdf/10.1007/978-94-007-7088-1_3.pdf</a> , <a href="http://ac.els-cdn.com/S0169204608002004/1-s2.0-S0169204608002004-main.pdf?_tid=daaf47a6-56a7-11e7-b53b-00000aab0f02&amp;acdnat=1498066638_57990f20c502aebf55f34b16b3fc2743">http://ac.els-cdn.com/S0169204608002004/1-s2.0-S0169204608002004-main.pdf?_tid=daaf47a6-56a7-11e7-b53b-00000aab0f02&amp;acdnat=1498066638_57990f20c502aebf55f34b16b3fc2743</a> , <a href="http://www.scielo.org.mx/pdf/rmbiodiv/v85n4/v85n4a22.pdf">http://www.scielo.org.mx/pdf/rmbiodiv/v85n4/v85n4a22.pdf</a> | The link provided by the reviewer is not working and therefore we have been unable to access the information. |
| Andrea Larissa Boesing    | 56        | 1366      | 59        | 1469      | There is no information regarding agroecosystems. Would be it na interesting topic to talk about? There are many examples especially in central america (with coffee), and even in Brazil with cocoa in agroecosystems and its positive impacts maintaining biodiversity or at least facilitating species movement within agricultural landscapes. Moreover, we also have evidence of how harsh pasture lands might be for native species. Maybe some information regarding its expansion and its impacts on biodiversity? Also, the expansion of eucalyptus and pinus plantations in Brazil is an important issue given that they are considered green deserts. Maybe some discussion about this topics could strenght this session.  | A section on agroecosystems has been added  |
| Co-chairs                 | 56        | 1366      | 59        | 1448      | This type of infomration is appropriate to feature, but by now is also familiar to most readers. If this were the full story, one would ask why anyone ever practices any other form of agriculture. It also encourages agricultural interests to accuse the biodiversity community of withholding information important to the policy discussion. to fully inform the policy dicussion, it is necessary to present some figures on something like yield per ha of intensive agriculture and intensive sylvaculture in comparison to comparable yields per ha from these milpa systems. Earlier sections of the chapter have already spelled out some of the costs of these inhanced produciton systems, with regard to need for fertilizers, pesticides, irrigation etc. So those negative parts of the full picture have been presented. But this part of the picture has to be displayed as well, and this is an appropriate place to do so.      | The section on agriculture has been revised.  |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|---|---|
| Brenda McAfee             | 58        | 1377      | 58        | 1377      | With respect to trout, some species that are cultured ( brook trout, Salvelinus fontinalis)are native to Canada. <a href="http://www.dfo-mpo.gc.ca/aquaculture/sector-secteur/species-especes/trout-truite-eng.htm">http://www.dfo-mpo.gc.ca/aquaculture/sector-secteur/species-especes/trout-truite-eng.htm</a> Also refer to box 4.13 in Chapter 4 of the assessment  | We use individual species as examples but cannot cover all of them. |
| Cristobal Diaz            | 59        | 1391      | 59        | 1396      | I agree with the observation written in the text - "Give explanations for trends" because the tendency is different in each subregion   | Thank you for your encouraging comment.                             |
| Virginia Meléndez Ramírez | 57        | 1394      | 57        | 1394      | Other map to complete: <a href="http://rstb.royalsocietypublishing.org/content/363/1492/789">http://rstb.royalsocietypublishing.org/content/363/1492/789</a>  | Maps have been completed and checked in the current version         |
| Co-chairs                 |           | 1399      |           | 1400      | Both carp and trout are native to the Americas. Although for carp the species increasingly dominating culture are non-native, some of the most dominant species of trout in cultivation are native to North America, but have been domesticated and far outside their original range. .But the statement that there are not native to the Americas is not accurate.     | This is an issue that we have not yet addressed.                    |
| DESP/Sbio/MMA             | 57        | 1400      | 57        | 1402      | "Although Brazil contains 20% of the world's fish species, aquaculture is solely based on non-native species – some are native to the country, but produced beyond their native ranges (I3N, 2016).": In Brazil, the aquaculture is mainly based on non-native species. To support the tendency presented, we suggest to cite other countries in South America as well. | This section has been revised                                       |

| Reviewer Name                  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|--------------------------------|-----------|-----------|-----------|-----------|--|---|
| Diana Patricia Alvarado-Solano | 59        | 1403      | 59        | 1406      | <p>Another case of study can be found in: Dolors Armenteras, Tania Marisol González, Javier Retana, Forest fragmentation and edge influence on fire occurrence and intensity under different management types in Amazon forests, <i>Biological Conservation</i>, Volume 159, 2013, Pages 73-79, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2012.10.026">http://dx.doi.org/10.1016/j.biocon.2012.10.026</a>.</p> <p>; Dolors Armenteras, Nelly Rodríguez, Javier Retana, Are conservation strategies effective in avoiding the deforestation of the Colombian Guyana Shield?, <i>Biological Conservation</i>, Volume 142, Issue 7, 2009, Pages 1411-1419, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2009.02.002">http://dx.doi.org/10.1016/j.biocon.2009.02.002</a>;</p> <p>Liliana M. Dávalos, Jennifer S. Holmes, Nelly Rodríguez, Dolors Armenteras, Demand for beef is unrelated to pasture expansion in northwestern Amazonia, <i>Biological Conservation</i>, Volume 170, 2014, Pages 64-73, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2013.12.018">http://dx.doi.org/10.1016/j.biocon.2013.12.018</a>; D. Armenteras, F. Gast, H. Villareal, Andean forest fragmentation and the representativeness of protected natural areas in the eastern Andes, Colombia, <i>Biological Conservation</i>, Volume 113, Issue 2, 2003, Pages 245-256, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/S0006-3207(02)00359-2">http://dx.doi.org/10.1016/S0006-3207(02)00359-2</a>;</p> <p>Dolores Armenteras, Guillermo Rudas, Nelly Rodriguez, Sonia Sua, Milton Romero, Patterns and causes of deforestation in the Colombian Amazon, <i>Ecological Indicators</i>, Volume 6, Issue 2, 2006, Pages 353-368, ISSN 1470-160X, <a href="http://dx.doi.org/10.1016/j.ecolind.2005.03.014">http://dx.doi.org/10.1016/j.ecolind.2005.03.014</a>; Alvarado-Solano &amp; Otero-Ospina. 2017. Natural areas of tropical dry forest in Valle del Cauca, Colombia: an opportunity for restoration. <i>Biota Colombiana</i> <a href="http://repository.humboldt.org.co/handle/20.500.11761/32528">http://repository.humboldt.org.co/handle/20.500.11761/32528</a>;</p> <p>Armenteras, D., N. Rodríguez, J. Retana y M. Morales. 2011. Understanding deforestation in montane and lowland forests of the Colombian Andes. <i>Regional Environmental Change</i> 11(3): 693-705. DOI: 10.1007/s10113-010-0200-y; Armenteras, D., E. Cabrera, N. Rodríguez y J. Retana</p> | Due to space constraints we were limited in the number of case studies that could be included |
| Cristobal Diaz                 | 60        | 1429      | 60        | 1430      | I suggest modify this phrase as is written: " This implies intensified conflicts between food and biofuelproduction, and nature conservation".   | The text has been edited in the current version   |

| Reviewer Name     | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|-------------------|-----------|-----------|-----------|-----------|---|---|
| Brenda McAfee     | 60        | 1434      | 60        | 1436      | A reference should be provided for the suggestion.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.               |
| André Mader       | 61        | 1444      |           |           | This title does not refer to future trends, but future trends are covered in the text.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.               |
| Cristobal Diaz    | 61        | 1446      | 109       | 2915      | The developments of point 3.3.1.1 North America Subregion(1446 -2048) and 3.3.1.4 South America Subregion (2243 -2915) belonging to point 3.3.1 Terrestrial bimes; are dispropotionately developed in relation with Mesoamerica and the Caribbean subregions of tropical richness and high grade of endemism in terrestrial biomes flora and fona that to be worthwhile to be analized more extensive |   |
| Co-chairs         | 59        | 1449      | 59        | 1460      | What about North America. The demand will continue, but will this mean going back to land conversions again or to increasing dependince on important food?  | We appreciate reviewer's comment on that. However, future trends have now been removed and will be addressed in Chapter 5 |
| Ederson A Zanetti | 59        | 1467      | 59        | 1567      | There should be a couple of paragraphs on silviculture for wood construction and wood energy. It is mentioned on the title - silviculture   | It is true that silviculture is treated in only a cursory way in this section.  |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|---|---|
| Co-chairs                 | 59        | 1467      |           |           | The sectoin has done a good job covering off the terrestrial part of agriculture production systems, a shorter by factual treatment of sylvaculture, but barely mentioned the extent to which aquaculture production systems have changed anything about the coastal or lacustrine areas where it is expanding. And like most treatments of production systems, it has said nothing about how selective fishing for a few preferred species has altered natural marine systems. It is not in fashion to treat fisheries as just another conversion of a natural system to a production system, but there should be at least a sentence pointing to whatever part of Chapter 3 has that part of the story of how the need for food by an increasing urbanized populaiton that is also increasing per capita consumption is leading the sea to be treated like land has been, | This is largely the domain of Chapter 4   |
| Héctor Tuy                | 60        | 1468      |           |           | A series of maps and chats about ecosystem (ecoregions) fragmentation for the last 20 years would help; one for the all region and then one for each subregion. This would be helpful because deforestation data is not enough.   | We are treating trends only at the level of subregions and biomes, rather than ecosystems. The broad trends are summarized in Fig. 3.24 |
| Virginia Meléndez Ramírez | 60        | 1468      | 60        | 1468      | 3.3. Status and recent trends in natural systems, 3.3.1. Terrestrial biomes, North American synthesizer, has 21 pages (60-81)   | The chapter has been reorganized and substantially rewritten.   |
| André Mader               | 61        | 1470      |           |           | Is "managed" an accurate word to use here?  | It is not clear where this comment is referring to. The chapter has been substantially edited.  |

| Reviewer Name            | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|--------------------------|-----------|-----------|-----------|-----------|---|---|
| Elizabeth Hess           | 60        | 1473      | 60        | 1473      | There is reference to eastern US and Canada and the Pacific Northwest. Is that the Pacific Northwest in both countries or just one. Not clear | It is not clear where this comment is referring to. The chapter has been substantially edited.              |
| André Mader              | 62        | 1479      |           |           | Are tropical forests relevant in this section?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader              | 62        | 1481      |           |           | How many tree species?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Brenda McAfee            | 62        | 1493      | 62        | 1496      | Do the numbers for exrtinct and threatened species refer to all of USA or only temperate forests or temperate and and boreal forests in USA?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| United States Government | 62        | 1493      | 62        | 1496      | Suggest clarifying that these are forest-associated species, not all species (as noted in the accompanying figures).                          | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |



| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
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| André Mader   | 62        | 1493      | 62        | 1496      | What is the relevance to the discussion on temperate and boreal forests and woodlands? | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Elise Belle   | 63        | 1497      | 63        | 1497      | Increase size of text in figures.  | The size of the text in the Figures has been increased.   |
| André Mader   | 63        | 1497      | 63        | 1499      | Why not a figure covering the whole subregion?   | We have not included a Figure covering the whole subregion because less than 1% of North American temperate deciduous forests have not experienced anthropogenic disturbance. |
| Elise Belle   |           | 1499      |           | 1499      | "excluding freshwater fish and invertebrates"  | This text has been edited in the current version.   |
| Elise Belle   |           | 1501      |           | 1501      | "Percentage of forest-associated species"  | This text has been edited in the current version.   |
| André Mader   | 63        | 1501      | 63        | 1502      | Does this figure refer to the whole North American subregion?                          | We have not included a Figure covering the whole subregion because less than 1% of North American temperate deciduous forests have not experienced anthropogenic disturbance. |

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|------------------------|-----------|-----------|-----------|-----------|--|---|
| Andrea Larissa Boesing | 61        | 1518      | 61        | 1521      | I see 'extinct' or 'at risk of extinction' as different things - even though the end will be the same. Can you use the numbers of real extinctions and at risk of extinction?  | The writing has been homogenized following reviewer's suggestion.   |
| Thomas Brooks          | 61        | 1518      | 62        | 1527      | Recommend replacing these figures with data from NatureServe, eg from "Precious Heritage", which is authoritative and near-comprehensive taxonomically. The 2003, 2010, and 2015 reports mentioned do not seem to be cited, so it's impossible to tell how authoritative they are. | Figure 3.30 has been replaced in the current version.   |
| André Mader            | 64        | 1521      |           |           | How rapid? Are figures available?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|--|---|
| Krista Locs   | 64        | 1536      | 65        | 1537      | Box 3.3 Woodland Caribou. Suggest rewording the text of the box to the following: One key terrestrial mammal species at risk throughout Canada's boreal forest is the Woodland Caribou ( <i>Rangifer tarandus caribou</i> ), Boreal population (referred to as 'boreal caribou'). The principal cause of its decline is the loss, degradation and fragmentation of habitat (primarily mature coniferous forest), both from anthropogenic and natural sources, and increased predation due to habitat alteration. The recovery goal for boreal caribou is to achieve self-sustaining local populations in all boreal caribou ranges throughout their current distribution in Canada, to the extent possible. Success in the recovery of boreal caribou will depend on the commitment, collaboration and cooperation among all interested parties, including federal departments, provinces and territories, wildlife management boards, Indigenous communities, stakeholders, and other organizations involved in their conservation and management (Environment Canada, 2012 <a href="http://www.registrelep-sararegistry.gc.ca/default.asp?lang=En&amp;n=33FF100B-1">http://www.registrelep-sararegistry.gc.ca/default.asp?lang=En&amp;n=33FF100B-1</a> ) | The box about the woodland caribou is no longer in the text.  |
| Elise Belle   | 63        | 1536      | 64        | 1537      | Box 3.3: "and fragmentation of its habitat"  | This text has been edited in the current version.   |
| André Mader   | 65        | 1542      |           | 1543      | This sentence seems to suggest that Quebec, Ontario, northern prairies and Alaska are Canadian maritime territories . Needs to be re-worded slightly.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

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|----------------|-----------|-----------|-----------|-----------|---|--|
| Elise Belle    | 64        | 1549      | 65        | 1550      | Box 3.4: "they are found in one of the significant"; "economical benefits through timber [...] but also access to culturally important".<br>Delete last sentence of paragraph or rephrase.<br>"to the forest, and more specifically its sustainable forestry experience."<br>"and includes requirements in relation to logging, managing and processing the forest resources"<br>Not sure the last paragraph is needed. | The last paragraph of the box has been cut off.                      |
| Cristobal Diaz | 66        | 1549      | 66        | 1550      | Please extract the main ideas in Box 3.4, because is very large.  | The wording of this part of the text has been reduced.               |
| André Mader    | 65        | 1549      | 66        |           | This box could be made more concise   | The wording of this part of the text has been reduced.               |
| Cristobal Diaz | 66        | 1550      | 70        | 1684      | I am not a North America studios but in point "Mediterranean forests, woodlands and scrub (MFWS)"almost all emphasis is putted on California characteristics , when can exists other states in the West that may have similarly characteristics. I suggest to realize a Box with a California moderate analysis and in the text write common characteristics of forest in this part of United States.                   | The IPBES maps of the biome classifications were used. See Chapter 1 |

| Reviewer Name  | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|----------------|-----------|-----------|-----------|-----------|--|---|
| André Mader    | 66        | 1551      |           |           | What is meant by "strictly" endemic?   | We have defined the region of study as the floristic province. Therefore, the "strictly endemic" term is appropriate.   |
| André Mader    | 67        | 1562      | 67        | 1563      | What are "native grasslands", and what is their relevance to MFWS?   | A new parenthetical comment about how grasslands are important to understand Med woodlands has been included. Also, the word "plant" has been added to clarify the meaning of "native" in this context. |
| Elizabeth Hess | 64        | 1563      | 64        | 1563      | Replace entire Box 3.3 with this text: Woodland Caribou ( <i>Rangifer tarandus</i> caribou), Boreal population ('boreal caribou') – Boreal caribou are an iconic species that occur broadly across Canada's boreal forest in nine provinces and territories. They require large areas of undisturbed habitat rich in mature to old-growth coniferous forest. Boreal caribou are listed as Threatened under Canada's Species at Risk Act and as such, Environment and Climate Change Canada published a recovery strategy in 2012. Habitat alteration (i.e. habitat loss, degradation, and fragmentation) from both anthropogenic and natural sources, and increased predation as a result of habitat alteration have led to local population declines throughout their distribution. The recovery of boreal caribou requires actions that will vary according to both the habitat and population conditions within each boreal caribou range.<br>( <a href="http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2253">http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2253</a> ) | The box about the woodland caribou is no longer in the text.  |

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|----------------|-----------|-----------|-----------|-----------|---|---|
| André Mader    | 67        | 1571      |           |           | What are California grasslands", and what is their relevance to MFWS?   | A new parenthetical comment about how grasslands are important to understand Med woodlands has been included. Also, the word "plant" has been added to clarify the meaning of "native" in this context.                 |
| André Mader    | 67        | 1588      | 67        | 1589      | Use of terms like "surprising" does not tell the reader much about the thing being described.   | The word "surprising" has been changed to "high levels".  |
| Harald Pauli   | 68        | 1595      | 68        | 1597      | change to 'Wolf and Anderegg 2001' instead of 'Stephenson and Das 2011'; however, I'm not convinced about the following: '...and plants (Crimmins et al., 2011), and linked to a trend towards increased rainfall. For plants, there is disagreement both about the trends and inferred link to climate...' which also contradicts to what was said above in line 1593. | The statement now reads: Downward elevational shifts have also been reported in birds (Tingley et al., 2009) and plants (Crimmins et al., 2011). For plants, there is disagreement <del>both about the trends and</del> |
| Cristobal Diaz | 68        | 1602      | 68        | 1603      | Please paid attention - (Griffin and Anchukaitis, 2014) can't analyze "California experienced a severe drought from 2012-2016" .  | The text has been fixed.  |
| Harald Pauli   | 71        | 1711      | 71        | 1711      | I also would expect that exotic species are rare in NW-American alpinas, but was it studied yet or is it mentioned in Malanson et al. 2015?   | This aspect is not mentioned in Malanson et al. (2015).   |

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|--------------------------|-----------|-----------|-----------|-----------|--|---|
| Elise Belle              | 74        | 1820      | 74        | 1821      | "Figure 3.32. Total area and Mean Fragmentation Index for each terrestrial ecoregion in North America, using a north American Lambert Conformal Conic Projection."   | Figures have been readapted in the current version.   |
| Elise Belle              |           | 1822      |           | 1823      | Why 'potential extent'. Delete sentence or clarify.  | This text has been edited in the current version.   |
| United States Government | 74        | 1825      | 74        | 1825      | "causes loss of at" may be missing a word to indicate what that loss is, or it may be indicating loss in general; please revise.   | We have revised the expression and changed it accordingly ("causes loss at").                               |
| United States Government | 75        | 1835      | 75        | 1835      | "extent" should be "extant" (also line 1836)   | This text has been edited in the current version.   |
| André Mader              | 75        | 1835      |           |           | Extant?  | The term "extant" has been checked and edited throughout the text.  |
| Elise Belle              | 75        | 1840      | 75        | 1848      | These graphs are a bit complicated to understand and interpret. It would help to have some clarifications about what they represent in the main text (or figure legend).                                       | Figures and tables have largely been edited in the current version for clarification                        |
| André Mader              | 75        | 1840      |           |           | This figure is purely "climatic" (i.e. it is about a driver, the focus of chapter 4). Considering the focus of chapter 3, would it be possible to replace it with one that shows effects on the system rather? | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader              | 75        | 1846      |           |           | Extant?  | The term "extant" has been checked and edited throughout the text.  |

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|---------------|-----------|-----------|-----------|-----------|--|---|
| André Mader   | 75        | 1847      |           |           | Extant?  | The term "extant" has been checked and edited throughout the text.  |
| André Mader   | 76        | 1850      |           |           | Is this figure possible? Apparently the whole USA has fewer than 20,000 (vascular) plant species   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 76        | 1856      | 76        | 1857      | Is this an appropriate comparison? There are probably ecological reasons for the Amazon's snake diversity being low relative to its overall species richness. Perhaps more appropriate to compare to other desert regions, or to North America as a whole? | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle   | 77        | 1870      | 77        | 1870      | Add title of x-axis and '120' marking.<br>Delete 'Agriculture' and 'Urban' from figure and explain in the legend what these 100-110 and 110-120 values correspond to.  | Figures and tables have largely been edited in the current version for clarification                        |
| André Mader   | 77        | 1885      | 77        | 1892      | Very specific examples (e.g. page 77 lines 1885-1892) might be more appropriate in boxes than as part of the body text   | We appreciate reviewer's comment. Unfortunately, we do not have any space to add additional boxes.          |
| Elise Belle   | 78        | 1900      | 78        | 1900      | "temperature (MAT) and B) Mean annual precipitation (MAP) between 1990 and"  | This text has been deleted from the original version.   |



| Reviewer Name  | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|----------------|-----------|-----------|-----------|-----------|---|---|
| Elizabeth Hess | 78        | 1964      | 78        | 1965      | of the 240 M Ha of wetlands in North America, 129M Ha are in Canada. Would be good to say that 54% of wetlands in N. America are in Canada. Also note that M Ha is used this section, but elsewhere km(2) was used.   | The units have been edited  |
| Elizabeth Hess | 78        | 1964      | 78        | 1964      | Not sure where the 12.6% comes from. According to Table 1.5, the area of N. America is 21,415,862 which would give a value of 11.2% if there are 240 M ha of wetlands in North America. Please verify   | The statement comes from (Dahl, 1990, 2011; Federal Provincial and Territorial Governments of Canada, 2010). The discrepancy may arise because Greenland is included in the Americas region, but it is not clear. |
| Elizabeth Hess | 78        | 1965      | 78        | 1966      | Would be good to indicate that Hudson Bay Lowlands and the Mackenzie River Watershed are in Canada. Will help readers   | We have generally tried not to focus on individual countries within the subregion except where the data is provided at the country level and has to be presented this way for accuracy                            |
| André Mader    | 78        | 1990      | 78        | 1904      | This figure is purely "climatic" (i.e. it is about a driver, the focus of chapter 4). Considering the focus of chapter 3, would it be possible to replace it with one that shows effects on the system rather?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Royal Gardner  | 79        | 1991      | 79        | 1993      | It is not correct to state that wetland losses in US continue to be greatest from agriculture. Losses from silviculture and rural and urban development now outpace agriculture. See page 56 of Chapter 5 of the Americas SOD, which cites to the more recent Dahl (2015). There was actually a net gain in wetlands in agricultural areas from 2004-2009. See also pages 16-18 of NAS (2001) <a href="https://www.nap.edu/catalog/10134/compensating-for-wetland-losses-under-the-clean-water-act">https://www.nap.edu/catalog/10134/compensating-for-wetland-losses-under-the-clean-water-act</a> | This issue still needs to be addressed  |

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|----------------|-----------|-----------|-----------|-----------|---|---|
| Royal Gardner  | 79        | 1991      | 79        | 2002      | The SOD does not seem to highlight the USA "Swampbuster" program. This program removed government incentives to drain wetlands for agriculture. Is this policy tool mentioned anywhere in the assessment? For a complete picture of why wetland losses due to agriculture declined, see Wiebusch & Lant (2017), Policy Drivers of US Wetland Conversion Rates, 1955-2009 <a href="http://www.tandfonline.com/doi/abs/10.1080/08941920.2016.1196279">http://www.tandfonline.com/doi/abs/10.1080/08941920.2016.1196279</a>  | This would be the domain of Chapter 4   |
| Elizabeth Hess | 79        | 1995      | 79        | 1995      | Reference to Canada's Federal Policy on Wetland Conservation is not accurate. There are no disincentives for filling and draining wetlands outlined in the Federal Wetland Policy. The Federal Policy on Wetland Conservation outlines seven strategies to provide for the use and management of wetlands so that they can continue to provide a broad range of functions on a sustainable basis. These strategies are aimed at working in concert with other ongoing initiatives for wetland conservation. They are aimed at providing practical direction, support, and tools to program managers. They set out direction to put the federal house in order, to manage federal wetlands, and to ensure effective wetland science and public awareness actions both nationally and internationally. All seven strategies are deemed to be critical to the success of the Policy. | It is not clear that the statement in the document is incorrect or how it could be revised succinctly. We are not able to treat the full policy here. |
| André Mader    | 81        | 2009      | 82        | 2048      | This section seems somewhat less comprehensive than the North America ones and lacks sub-sections and information on future trends.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
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| Brenda McAfee | 81        | 2016      | 81        | 2021      | It seems a bit strange to start off a paragraph that provides references for species numbers to start off by saying that species counts are uncertain. This statement would need a reference or further explanation. | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Royal Gardner | 80        | 2033      | 80        | 2046      | Will "Future trends" make reference to the Trump administration's proposal to limit federal regulation of wetlands under the Clean Water Act?  | We appreciate reviewer's comment. Unfortunately, we have been asked not to address policy issues            |
| André Mader   | 82        | 2049      | 86        | 2171      | Very sparse compared to the north American sections. I think readers would expect a better balance.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 82        | 2049      | 86        | 2171      | What about freshwater systems and grasslands?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|--|---|
| Harald Pauli  | 82        | 2050      | 83        | 2086      | <p>What about amphibian decline, either through habitat destruction, chytridiomycosis or climate change, which were reported to being rather drastic in several parts of MA (e.g. Mendelson et al. 2004. Factors associated with the catastrophic decline of a cloudforest frog fauna in Guatemala; Pounds et al. 2006. Widespread amphibian extinctions from epidemic disease driven by global warming; Cheng et al. 2011. Coincident mass extirpation of neotropical amphibians with the emergence of the infectious fungal pathogen Batrachochytrium dendrobatidis).</p> <p>Further, I miss any account on cloud forests and alpine areas in MA, although areas are small and fragmented, but because of this the risk of biodiversity losses may be especially high. In this context the following should be included: 'Shifts in species composition, driven by climate change-induced species migration, were found an extensive elevation gradient (70-2800m) were found in Costa Rican humid tropical forest (Feeley et al. 2013. Compositional shifts in Costa Rican forests due to climate-driven species migrations. GCB).'</p> | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 82        | 2050      | 83        | 2086      | The different terms used here are a bit confusing. What is the relationship between "Tropical and subtropical humid forests", and "MBF"?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 82        | 2050      | 83        | 2086      | Future trends?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

| Reviewer Name             | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------------------|-----------|-----------|-----------|-----------|--|---|
| Elise Belle               | 82        | 2060      | 82        | 2061      | If the reference is from 2005 or 2008, it is now likely to cover a larger proportion of the territory, so I would suggest editing as follows: "In [ADD YEAR], the Central American System of Protected Areas (SICAP) included 669 protected areas covering 129,640 km <sup>2</sup> , representing 25% of the territory, the majority of which is made of MBF"  | We haven't been able to find more recent data   |
| Elise Belle               | 82        | 2062      | 83        | 2066      | This reference is quite old (from 2005), it would be good to check in the World Database of Protected Areas (WDPA) if these PAs are still the largest ones. This can be found at <a href="http://www.protectedplanet.net">www.protectedplanet.net</a> .<br>Reference: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: <a href="http://www.protectedplanet.net">www.protectedplanet.net</a> .   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Elise Belle               | 83        | 2066      | 83        | 2067      | Reference for Mexico? You could also add that in Mexico, protected areas currently cover 14.9% of land and inland waters and 21.8% of coastal and marine areas under national jurisdiction (UNEP-WCMC and IUCN, 2017).<br>See: <a href="http://www.protectedplanet.net/country/MX">www.protectedplanet.net/country/MX</a> .<br>Reference: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: <a href="http://www.protectedplanet.net">www.protectedplanet.net</a> .   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.   |
| Virginia Meléndez Ramírez | 88        | 2088      | 88        | 2088      | Mesoamerica can be documented more, e.g. México quinto informe DB Mex CONABIO: <a href="https://www.cbd.int/doc/world/mx/mx-nr-05-es.pdf">https://www.cbd.int/doc/world/mx/mx-nr-05-es.pdf</a> ,<br><a href="https://www.uv.mx/personal/tcarmona/files/2010/08/Dirzo-2004.pdf">https://www.uv.mx/personal/tcarmona/files/2010/08/Dirzo-2004.pdf</a> ,<br><a href="http://www.scielo.org.mx/pdf/bs/v90n2/v90n2a10.pdf">http://www.scielo.org.mx/pdf/bs/v90n2/v90n2a10.pdf</a> Libro Dirzo 2012,<br><a href="http://www.undp.org/content/dam/peru/docs/Publicaciones%20medio%20ambiente/PNUDValoracionEconomicaBiodiversidadInforme.pdf">http://www.undp.org/content/dam/peru/docs/Publicaciones%20medio%20ambiente/PNUDValoracionEconomicaBiodiversidadInforme.pdf</a> ,<br><a href="http://www.latinamerica.undp.org/content/dam/undp/library/Environment%20and%20Energy/biodiversity/Latin-America-and-the-Caribbean---A-Biodiversity-Superpower--Policy_Brief_SPANISH.pdf">http://www.latinamerica.undp.org/content/dam/undp/library/Environment%20and%20Energy/biodiversity/Latin-America-and-the-Caribbean---A-Biodiversity-Superpower--Policy_Brief_SPANISH.pdf</a> | We have made a great effort to increase the representation of Mesoamerica in the revised version of the chapter. A number of new contributing authors from Mesoamerica have been added. |

| Reviewer Name     | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
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| André Mader       | 83        | 2088      |           |           | "Tropical dry forests (TDF) are considered one of the most threatened of all terrestrial ecosystems"... in the world or in the region or in the subregion?  | The sentence has been edited to clarify it is worldwide  |
| André Mader       | 83        | 2088      | 84        | 2124      | What about subtropicaldry forests?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.  |
| André Mader       | 83        | 2088      | 84        | 2124      | Future trends?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.  |
| Thomas Brooks     | 82        | 2097      | 82        | 2097      | Important to mention the very high endemism of - and very high threat to - amphibian species in the Mesoamerican highlands. A good primary source is Lamoreux et al. (2015 <a href="https://portals.iucn.org/library/node/45100">https://portals.iucn.org/library/node/45100</a> ). | Amphibians are treated at a broader scale. See Fig. 3.4, which shows high species richness and phylogenetic endemism for amphibians in Mesoamerica |
| Ederson A Zanetti | 82        | 2106      | 82        | 2106      | There should be a paragraph on current cultivated and consume trees for wood construction and energy  | We acknowledge that silviculture is only treated in a cursory way in the chapter   |

| Reviewer Name           | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
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| André Mader             | 84        | 2125      | 84        | 2131      | Very little information here  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.  |
| Ederson A Zanetti       | 83        | 2126      | 83        | 2126      | There should be mention to the increase on atmospheric CO2 available and increase on productivity of vegetation within the region. There are studies from NASA about it | We have not been able to treat the impacts of elevated CO2 on vegetation; this is the domain of Chapter 4 but also largely falls outside the focal scope of the Regional assessment. Hopefully it will be treated in the Global assessment |
| Ederson A Zanetti       | 83        | 2147      | 83        | 2147      | There should be a paragraph on current cultivated and consume trees for wood construction and energy  | We acknowledge that silviculture is only treated in a cursory way in the chapter   |
| E. Arguedas y C. Roldán | 85        | 2161      | 85        | 2162      | Subsistence is a threat? For wetlands? It is a old source   | The word subsistence has been eliminated from the text.  |

| Reviewer Name                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
|-------------------------------|-----------|-----------|-----------|-----------|---|--|
| Ederson A Zanetti             | 84        | 2164      | 84        | 2164      | There should be mention to the increase on atmospheric CO2 available and increase on productivity of vegetation within the region. There are studies from NASA about it   | We have not been able to treat the impacts of elevated CO2 on vegetation; this is the domain of Chapter 4 but also largely falls outside the focal scope of the Regional assessment. Hopefully it will be treated in the Global assessment |
| M. en C. Jessica Bravo Cadena | 84        | 2166      | 84        | 2172      | Could include information about recent trends of Drylands and deserts with data of Capital natural de México, vol. II : Estado de conservación y tendencias de cambio., Edition: Primera, Chapter: Tendencias de cambio y estado de la biodiversidad, los ecosistemas y sus servicios Publisher: CONABIO, Editors: Sarukan, et<br><a href="http://www.biodiversidad.gob.mx/pais/pdf/CapNatMex/Vol%20II/II01_Factores%20de%20cambio%20y%20estado%20de%20la%20biodiversidad.pdf">http://www.biodiversidad.gob.mx/pais/pdf/CapNatMex/Vol%20II/II01_Factores%20de%20cambio%20y%20estado%20de%20la%20biodiversidad.pdf</a><br>González, M. F. (2012). Las zonas áridas y semiáridas de México y su vegetación. Secretaría de Medio Ambiente y Recursos Naturales, Instituto Nacional de Ecología: Mexico City, Mexico. | Drylands have been expanded somewhat and the North American and Mesoamerican components have been combined. Box 3.7 has been added to highlight the case study of The Cuatro Ciénegas Basin in Coahuila, Mexico                            |
| Cristobal Diaz                | 86        | 2172      | 88        | 2242      | Please consult with Cuban Ph.Ds Dalia Salabarría in Chapter 6 and Avelino Suarez in Chapter 4 in order to include more information and references about the situation and work in Cuban island the big island in the Caribbean and with systematically research and study and projects about forests  | We were not able to accommodate this request   |



| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|---|-----------|-----------|-----------|-----------|---|---|
| André Mader                                   | 86        | 2172      | 88        | 2242      | Very sparse and un-detailed, especially compared with the north American sections. I think readers would expect a better balance. | We have tried very hard to provide a more balanced treatment but this will surely not satisfy all readers   |
| André Mader                                   | 87        | 2217      | 88        | 2242      | Future trends?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader                                   | 87        | 2217      | 88        | 2242      | Are there only two biomes/units of analysis relevant to the entire subregion?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| The Biodiversity Indicators Partnership (BIP) | 86        | 2232      | 86        | 2233      | Good use of the Red List to illustrate level of threat to biodiversity in Caribbean.  | Thank you for your encouraging comment.   |
| Thomas Brooks                                 | 86        | 2232      | 86        | 2233      | Good use of the Red List to illustrate level of threat to biodiversity in Caribbean.  | Thank you for your encouraging comment.   |

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|--------------------------------|-----------|-----------|-----------|-----------|--|---|
| CENAP/ICMBio                   | 88        | 2243      | 90        | 2319      | Concerning threats to biodiversity in tropical forests, it is interesting to include hunting pressure as a relevant threat to the conservation of mammal species, since together with habitat loss is one of the main threats to species extinction and is an important criterion of the IUCN.   | We have now added a new paragraph specifically addressing this issue in the section on tropical and subtropical humid forests of South America. |
| André Mader                    | 88        | 2243      | 109       | 2915      | Perhaps it should be explained at the beginning of the South America section that freshwater systems are not covered separately  | The chapter has been reorganized and substantially rewritten. Hopefully this is now more clear  |
| André Mader                    | 88        | 2245      | 88        | 2247      | I think this is a great example of how each of the biome sections should begin, however it could be a little bit more detailed.  | Thank you for your encouraging comment. Introduction is now more detailed.  |
| Diana Patricia Alvarado-Solano | 89        | 2276      | 89        | 2278      | Related with orchids and climate change: Reina-Rodríguez et al. 2017. ORCHID DISTRIBUTION AND BIOCLIMATIC NICHE AS A STRATEGY TO CLIMATE CHANGE IN AREAS OF TROPICAL DRY FOREST IN COLOMBIA. LANKESTERIANA 17(1): 17-47. doi+: <a href="http://dx.doi.org/10.15517/lank.v17i1.27999">http://dx.doi.org/10.15517/lank.v17i1.27999</a> ; Sánchez et al. 2016. Edge Influence on Diversity of Orchids in Andean Cloud Forests. Forests 7(63). DOI: 10.3390/f7030063 | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.                                     |

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|---------------|-----------|-----------|-----------|-----------|--|---|
| André Mader   | 89        | 2280      | 90        | 2319      | Why so little on ACF here? For example, it might be worth mentioning that it is arguably the world's "hottest" biodiversity hotspot!   | We tried to allocate a similar amount of text for every unit of analysis, and agree that every single one of the biomes would need an entire separate assessment. Unfortunately we cannot do this because of severe |
| Harald Pauli  | 89        | 2303      | 91        | 2348      | Amphibian declines through chytridiomycosis and other causes should be mentioned here and/or in the Andean section below (Cheng et al. 2011; Ruiz et al. 2008; Eterovick et al. 2005).<br>Additional refs.:<br>'Ruiz et al. 2008. Batrachochytrium dendrobatidis and Chytridiomycosis in Anuran Amphibians of Colombia. Eco Health 5, 27-33.<br>Eterovick et al. 2005. Amphibian Declines in Brazil: An Overview. Biotropica 37, 166-179.' | This may be more in the domain of Chapter 4   |

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|--------------------------------|-----------|-----------|-----------|-----------|--|--|
| Diana Patricia Alvarado-Solano | 89        | 2303      | 89        | 2304      | <p>Another case of study can be found in: Dolors Armenteras, Tania Marisol González, Javier Retana, Forest fragmentation and edge influence on fire occurrence and intensity under different management types in Amazon forests, <i>Biological Conservation</i>, Volume 159, 2013, Pages 73-79, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2012.10.026">http://dx.doi.org/10.1016/j.biocon.2012.10.026</a>.</p> <p>; Dolors Armenteras, Nelly Rodríguez, Javier Retana, Are conservation strategies effective in avoiding the deforestation of the Colombian Guyana Shield?, <i>Biological Conservation</i>, Volume 142, Issue 7, 2009, Pages 1411-1419, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2009.02.002">http://dx.doi.org/10.1016/j.biocon.2009.02.002</a>;</p> <p>Liliana M. Dávalos, Jennifer S. Holmes, Nelly Rodríguez, Dolors Armenteras, Demand for beef is unrelated to pasture expansion in northwestern Amazonia, <i>Biological Conservation</i>, Volume 170, 2014, Pages 64-73, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/j.biocon.2013.12.018">http://dx.doi.org/10.1016/j.biocon.2013.12.018</a>; D. Armenteras, F. Gast, H. Villareal, Andean forest fragmentation and the representativeness of protected natural areas in the eastern Andes, Colombia, <i>Biological Conservation</i>, Volume 113, Issue 2, 2003, Pages 245-256, ISSN 0006-3207, <a href="http://dx.doi.org/10.1016/S0006-3207(02)00359-2">http://dx.doi.org/10.1016/S0006-3207(02)00359-2</a>;</p> <p>Dolores Armenteras, Guillermo Rudas, Nelly Rodriguez, Sonia Sua, Milton Romero, Patterns and causes of deforestation in the Colombian Amazon, <i>Ecological Indicators</i>, Volume 6, Issue 2, 2006, Pages 353-368, ISSN 1470-160X, <a href="http://dx.doi.org/10.1016/j.ecolind.2005.03.014">http://dx.doi.org/10.1016/j.ecolind.2005.03.014</a>; Alvarado-Solano &amp; Otero-Ospina. 2017. Natural areas of tropical dry forest in Valle del Cauca, Colombia: an opportunity for restoration. <i>Biota Colombiana</i> <a href="http://repository.humboldt.org.co/handle/20.500.11761/32528">http://repository.humboldt.org.co/handle/20.500.11761/32528</a>;</p> <p>Armenteras, D., N. Rodríguez, J. Retana y M. Morales. 2011. Understanding deforestation in montane and lowland forests of the Colombian Andes. <i>Regional Environmental Change</i> 11(3): 693-705. DOI: 10.1007/s10113-010-0200-y; Armenteras, D., E. Cabrera, N. Rodríguez y J. Retana</p> | <p>We thank you for this list of relevant papers. We have now cited Armenteras et al. (2009) in the context of protected areas. However, most other papers refer to drivers of deforestation, which is the central topic in Chapter 4. We have forwarded the list of papers to people in charge of that Chapter.</p> |

| Reviewer Name          | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations   |
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| André Mader            | 89        | 2303      |           |           | Use of vague terminology like "much" is probably not useful  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.        |
| Andrea Larissa Boesing | 88        | 2313      | 88        | 2314      | Maybe to mention that C storage in pristine forests is higher than plantations as well?  | We have not been able to find a reference to support this statement.   |
| André Mader            | 90        | 2318      | 90        | 2319      | This statement about ACF and exotic plantations is confusing. Are you considering exotic plantations as a contribution to ACF? That could be very controversial. | We have rewritten the sentence to clarify that humans contributed to breed new varieties of manioc                 |
| Ederson A Zanetti      | 88        | 2324      | 88        | 2324      | There should be a paragraph on current cultivated and consume trees for wood construction and energy   | Although reviewer's idea is interesting, space limitations prevents us from adding this kind of extra information. |
| André Mader            | 90        | 2326      | 91        | 2348      | What about ACF?  | We are now statig status and trend factrs available in the literature.   |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
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| Philip M. Fearnside                           | 88        | 2328      | 88        | 2329      | For a recent review of fragmentation effects see: Laurance, W.F., J.L.C. Camargo, P.M. Fearnside, T.E. Lovejoy, G.B. Williamson, R.C.G. Mesquita, C.F.J. Meyer, P.E.D. Bobrowiec & S.G.W. Laurance. 2017. An Amazonian rainforest and its fragments as a laboratory of global change. <i>Biological Reviews</i> doi: 10.1111/brv.12343 (Online version published 30 May 2017). [open access]. | The reference has been added to the text following reviewer's suggestion.  |
| Andrea Larissa Boesing                        | 89        | 2337      | 89        | 2338      | Maybe it would be nice to include the thresholds estimates in south america? ~40% for vascular plants, ~30 for birds, ~30% for small mammals, etc.  | Although reviewer's idea is interesting, we think it is better not to go into this level of detail considering we need to address biome-wide patterns. |
| Philip M. Fearnside                           | 89        | 2349      | 89        | 2349      | For a recent review of status of forest (and other S. American ecosystems) see: Fearnside, P.M. 2017. South American natural ecosystems, status of. In: Reference Module in Life Sciences, Elsevier, Amsterdam, The Netherlands. <a href="http://dx.doi.org/10.1016/B978-0-12-809633-8.02224-X">http://dx.doi.org/10.1016/B978-0-12-809633-8.02224-X</a>                                      | We thank you for this suggestion but prefer citing the original references, as we already do.  |
| André Mader                                   | 91        | 2349      | 91        | 2377      | Future trends?  | Future trends will now be addressed in Chapter 5   |
| The Biodiversity Indicators Partnership (BIP) | 89        | 2351      | 89        | 2352      | Good use of the Red List to illustrate level of threat to Amazonian trees.  | Thank you for the encouraging comment  |
| Thomas Brooks                                 | 89        | 2351      | 89        | 2352      | Good use of the Red List to illustrate level of threat to Amazonian trees.  | Thank you for the encouraging comment  |

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|--------------------------------|-----------|-----------|-----------|-----------|--|---|
| André Mader                    | 91        | 2357      |           |           | Are grasslands and woodlands relevant to this section about forest?  | We believe they are, as our focus in on "Tropical and subtropical humid forests". |
| Diana Patricia Alvarado-Solano | 91        | 2358      | 91        | 2360      | <p>The exotic animals that are now the base for livestock production in Meso and SouthAmerica where introduced by Spaniards during the colonization. Its important to mention this in a way to make notice about the time frame in which the different ecosystems has been under land use conversion. Also, is important to present the statistics for the LAC the cover extent and percentage of TDF under protection (Sánchez-Azofeifa et al. 2005. Research priorities for neotropical dry forests. Biotropica. DOI: 10.1111/j.1744-7429.2005.00066.x; Sánchez-Cuervo et al. 2012. Land Cover Change in Colombia: Surprising Forest Recovery Trends between 2001 and 2010. PlosOne. doi:10.1371/journal.pone.0043943; Romero-Duque et al. 2007. Structure and diversity of secondary tropical dry forests in Mexico, differing in their prior land-use history. Forest Ecology and Management. DOI: doi:10.1016/j.foreco.2007.07.002; Quesada et al. 2009. Succession and management of tropical dry forests in the Americas: Review and new perspectives. Forest Ecology and Management. doi:10.1016/j.foreco.2009.06.023; Alvarado-Solano &amp; Otero. 2017. Natural areas of tropical dry forest in Valle del Cauca, Colombia: an opportunity for restoration. DOI: 10.21068/c2017.v18s01a01; Pizano &amp; García. 2014. El Bosque Seco Tropical en Colombia. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (IAvH). Available at: <a href="http://www.humboldt.org.co/es/component/k2/item/529-el-bosque-seco-tropical-en-colombia">http://www.humboldt.org.co/es/component/k2/item/529-el-bosque-seco-tropical-en-colombia</a></p> | The assessment is focused on trends in the last 40 years                          |

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| Ederson A Zanetti | 89        | 2366      | 89        | 2366      | There should be mention to the increase on atmospheric CO2 available and increase on productivity of vegetation within the region. There are studies from NASA about it | We have not been able to treat the impacts of elevated CO2 on vegetation; this is the domain of Chapter 4 but also largely falls outside the focal scope of the Regional assessment. Hopefully it will be treated in the Global assessment |
| André Mader       | 92        | 2379      |           |           | What is meant by "distinctive" here?  | The word has been deleted from this part of the text   |
| Thomas Brooks     | 90        | 2385      | 90        | 2385      | In addition, species-area models predict ongoing loss extinctions of Atlantic Forest endemic birds (eg Brooks & Balmford 1996 Nature DOI: 10.1038/380115a0)             | Future trends are treated in Chapter 5   |
| André Mader       | 92        | 2387      |           |           | "Monito de Monte" is not a deer ( <a href="http://www.iucnredlist.org/details/6834/0">http://www.iucnredlist.org/details/6834/0</a> )                                   | "Monito del Monte" has been deleted from the text.   |



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| Elise Belle            | 93        | 2430      | 93        | 2430      | Reference?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle            |           | 2435      |           | 2435      | "conserved in terms of the state of conservation of its protected areas"    | This part of the text has been deleted in the current version.  |
| Elise Belle            |           | 2436      |           | 2437      | Reference of last sentence? Perhaps you could expand a bit on that.         | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle            | 94        | 2439      | 94        | 2439      | "Figure 3.36. Present and modelled future"                                  | This part of the text has been deleted in the current version.  |
| Andrea Larissa Boesing | 91        | 2441      | 91        | 2443      | mammalian herbivores' here would be domestic animals like cattle or horses? | Correct   |

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| Elise Belle   |           | 2446      |           | 2447      | "change scenarios show an increase in extinction risks (Keith et al. 2008). However, modelled distributions of Nothofagus forests show that some species will also benefit from climate change (Arlacón" | This part of the text has been deleted in the current version.                            |
| André Mader   | 95        | 2461      |           |           | This acronym is different to the one used for North America  | The acronym has been fixed up.  |
| Elise Belle   | 96        | 2483      | 96        | 2483      | Increase size of text in figure legend and size of maps.   | The maps have been deleted due to space constraints and to avoid unnecessary information. |
| André Mader   | 96        | 2483      |           |           | This is a really complex figure, which is not referred to sufficiently in the text... what is the difference between the left and the central figures?   | The figure has been deleted.  |
| André Mader   | 97        | 2513      | 97        | 2517      | This seems more appropriate for chapter 6, but it sounds quite policy-prescriptive.  | The sentence has been deleted following reviewer's suggestion.                            |

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| Elise Belle   | 97        | 2531      | 97        | 2531      | Increase size of graph.  | The size of the graph has been increased in the current version  |
| Elise Belle   | 97        | 2533      | 97        | 2533      | "of Central Chili, between 1976 and 2014."   | The sentence has been fixed following reviewer's suggestion  |
| André Mader   | 99        | 2580      |           |           | Why is this figure here, and not at the beginning of the section on South America? | This Figure was added after completing the document. We decided to place it at the end of the document to avoid changing the numbers from other Figures. |
| André Mader   | 99        | 2581      | 100       | 2592      | The term "matorral" is used here but not in the text                               | The term matorral is no longer used.   |
| André Mader   | 100       | 2595      | 100       | 2596      | I think that "tropical" and "alpine" might be contradictory terms.                 | To avoid confusion we refer above-tree line habitats as "high elevation areas".  |

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| Harald Pauli  | 100       | 2605      | 100       | 2606      | <p>suggest to add after '...Sklenář et al., 2014),': '...where mountain-top vegetation was found to be richer in genera and species in the páramo compared to the puna region (Questa et al. 2016), however, puna and southern Andean steppe house more endemic plant genera than does páramo (Arroyo, Cavieres, and Fuego, 2013).'</p> <p>additional ref.: 'Cuesta, F., Muriel, P., Llambí, L. D., Halloy, S., Aguirre, N., Beck, S., Carilla, J., Meneses, R. I., Cuello, S., Grau, A., Gámez, L. E., Irazábal, J., Jácome, J., Jaramillo, R., Ramírez, L., Samaniego, N., Suárez-Duque, D., Thompson, N., Tupayachi, A., Viñas, P., Yager, K., Becerra, M. T., Pauli, H. and Gosling, W. D. (2016). Latitudinal and altitudinal patterns of plant community diversity on mountain summits across the tropical Andes. <i>Ecography</i>, doi 10.1111/ecog.02567.'</p> | The reviewer's edits have been added to the text.  |
| Harald Pauli  | 101       | 2648      | 101       | 2650      | <p>suggest to add after '...Sklenář 2016).: '...repeated surveys of permanent plots in tropical high-Andean vegetation are rare, but baseline data and plots were recently established across the equatorial and seasonal-tropical Andes (Questa et al. 2016).</p> <p>ref.: 'Cuesta, F., Muriel, P., Llambí, L. D., Halloy, S., Aguirre, N., Beck, S., Carilla, J., Meneses, R. I., Cuello, S., Grau, A., Gámez, L. E., Irazábal, J., Jácome, J., Jaramillo, R., Ramírez, L., Samaniego, N., Suárez-Duque, D., Thompson, N., Tupayachi, A., Viñas, P., Yager, K., Becerra, M. T., Pauli, H. and Gosling, W. D. (2016). Latitudinal and altitudinal patterns of plant community diversity on mountain summits across the tropical Andes. <i>Ecography</i>, doi: [10.1111/ecog.02567]'</p>   | We appreciate reviewer's concerns, although this point should be dealt with in Chapter 1 |

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| juan comerma  | 102       | 2681      | 102       | 2681      | There is no mention of the high resilience of savannas,,but also it would be important to add this aspects for all Units of Analysis                   | We appreciate reviewer's concern, although this point should be dealt with in Chapter 1                         |
| Elise Belle   | 103       | 2706      | 103       | 2707      | Explain the difference between gross and net loss and how it was calculated.   | Although the reviewer's idea is interesting, we decided to avoid this level of detail due to space constraints. |
| juan comerma  | 104       | 2719      | 104       | 2720      | There is no mention of savannas in Venezuela, Colombia, Bolivia , mostly used in rangeland sand, including several wetlandas in Venezuela and Colombia | The savannas have now been mentioned.   |
| DESP/Sbio/MMA | 102       | 2734      | 102       | 2734      | The state name is Mato Grosso, not Matto Grosso.   | The state name has been changed following reviewer's suggestion.  |

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|-----------------|-----------|-----------|-----------|-----------|---|--|
| Giselda Durigan | 102       | 2742      | 103       | 2752      | I would add an additional threat to the Cerrado biodiversity, that is fire suppression (Durigan & Ratter 2016) and woody encroachment (Stevens et al 2016). Sources: (1) Durigan, G., & Ratter, J. A. (2016). The need for a consistent fire policy for Cerrado conservation. <i>Journal of Applied Ecology</i> , 53(1), 11-15. (2) Stevens, N., Lehmann, C. E., Murphy, B. P., & Durigan, G. (2017). Savanna woody encroachment is widespread across three continents. <i>Global change biology</i> , 23(1), 235-244.  | The additional threat has been added followin reviewer's suggestion. |
| Giselda Durigan | 103       | 2763      | 104       | 2776      | Woody encroachment is a silent threat to the Cerrado biodiversity. We have a paper in press showing huge losses of endemic plants and ants biodiversity as biomass increases and there is a biome shift, with open savanna turning into forest vegetation. Woody encroachment has been recorded in the whole Cerrado, mostly associated with fire suppression. Besides, I see a high risk of afforestation across the tropical savannas as a way to attend the global agreements of Forest and Landscape Restoration for carbon sequestration. (See Veldman, J. W., Overbeck, G. E., Negreiros, D., Mahy, G., Le Stradic, S., Fernandes, G. W., ... & Bond, W. J. (2015). Where tree planting and forest expansion are bad for biodiversity and ecosystem services. <i>BioScience</i> , 65(10), 1011-1018.) | We have added this new reference following reviewer's suggestion.    |

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| DESP/Sbio/MMA                                 | 103       | 2770      | 103       | 2771      | "Currently, 42% of conservation targets in the Cerrado (where only 2.2% of land is fully protected – Klink and Machado, 2005) are not adequately protected.": this information is based on an underestimated protected area network. Nowadays, 8.3% of the Cerrado biome is under some kind of protection - 3.1% in strictly protected areas (National Database for Protected Areas/ Brazilian Ministry of the Environment - Cadastro Nacional de Unidades de Conservação - CNUC, updated on February 7th, 2017). The paper cited considers a network of only 2.2% of protected areas in the biome. | We have added this new reference following reviewer's suggestion. |
| The Biodiversity Indicators Partnership (BIP) | 87        | 2771      | 87        | 2774      | Good use of the Red List to illustrate level of threat to biodiversity in Caribbean dry forest.   | Thank you for your encouraging comment.                           |
| Thomas Brooks                                 | 87        | 2771      | 87        | 2774      | Good use of the Red List to illustrate level of threat to biodiversity in Caribbean dry forest.   | Thank you for your encouraging comment.                           |
| Thomas Brooks                                 | 104       | 2776      | 104       | 2776      | Mention policy options for the cerrado here; see eg Strassburg et al. (2017) Moment of truth for the Cerrado hotspot. Nature Ecology & Evolution. DOI: 10.1038/s41559-017-0099.   | Policy options can not be discussed in this document.             |

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| DESP/Sbio/MMA | 104       | 2782      | 104       | 2783      | "The southern grasslands in Brazil originally covered about 10,500,000 hectares (IBGE, 2003)": this information seems to be out of date. The Pampa Biome, formed by grasslands, is located in the southern Brazil and originally covered 17,870,400 hectares (IBGE 2004). | This part of the text has been deleted in the current version.         |
| André Mader   | 107       | 2838      | 107       | 2840      | "According to the Fifth IPCC report..." reference?  | This part of the text has been deleted in the current version.         |
| Juan Comerma  | 108       | 2857      | 108       | 2857      | there is no mention of the Orinoco Delta with large peatlands and the internal venezuelan and colombian deltas similar to pantanal although not so large  | The specified deltas have now been added to the text.                  |
| Héctor Tuy    | 112       | 2880      |           |           | It would be nice a "A safe operating space for humanity" like for LAC - <a href="http://www.nature.com/nature/journal/v461/n7263/full/461472a.html?foxtrotcallback=true">http://www.nature.com/nature/journal/v461/n7263/full/461472a.html?foxtrotcallback=true</a>       | This comment was not clear to us                                       |
| Harald Pauli  | 110       | 2910      | 110       | 2910      | Table 3.5: at MA tropical/subtropical moist forests, the number of tree species (1535) seems underestimated, e.g. for Panama alone 2300 tree species were reported (Condit et al. 2010. Trees of Panama and Costa Rica).  | This table has largely been edited and checked in the current version. |



| Reviewer Name   | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations  |
|-----------------|-----------|-----------|-----------|-----------|---|---|
| Harald Pauli    | 110       | 2910      | 110       | 2910      | Table 3.5: NA Drylands and deserts: the number of plants (only in SW-USA) of >30000 is strongly overestimated. The native vascular plant flora of the entire USA comprises about 17000 species (plus ~ 3800 non-native ones).   | This table has largely been edited and checked in the current version.  |
| Giselda Durigan | 107       | 2912      | 108       | 2935      | A huge area of wetlands has been completely neglected in Brazil: the "Veredas". They are formed by wet grasslands, peatlands and peat swamp forests, spread in the whole savanna biome in Brazil, around the springs and along water courses, representing, perhaps, 5% of the biome. However, they were never quantified, by technical limitations of remote sensing. Besides a huge and peculiar biodiversity, these ecosystems have extreme importance for water quality and regulation.   | The whole point has been added following reviewer's suggestion.   |
| Royal Gardner   | 107       | 2912      | 107       | 2916      | Note that the 6% figure is a rough estimate. As I noted in my comments in the SOD of the LDR: Inconsistent definitions of what constitutes a wetland are also a challenge. ... For a more recent discussion of the global extent of wetlands, see the attached chapter by Finlayson, Milton, and Prentice (2016).<br><br>The downscaling analyses of Fluet-Chouinard et al. (2015) -- <a href="https://wle.cgiar.org/development-global-inundation-map-high-spatial-resolution-topographic-downscaling-coarse-scale">https://wle.cgiar.org/development-global-inundation-map-high-spatial-resolution-topographic-downscaling-coarse-scale</a> -- suggest that higher estimates may be realistic, and could still be an underestimate. | Because of the uncertainties raised up by the reviewer, the 6% figure has been eliminated. Unfortunately, we have not been able to understand what the second part of the message wishes to convey. |
| Cristobal Diaz  | 109       | 2916      | 111       | 2922      | Very useful the information in the Table 3. 5. Summary biodiversity data for principal terrestrial biomes in subregions of the Americas. The same for the other Table of RECENT TRENDS. Congratulations to the authors  | Thank you for your encouraging comment.   |

| Reviewer Name | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
|---------------|-----------|-----------|-----------|-----------|--|---|
| André Mader   | 109       | 2916      | 111       | 2922      | Could the purpose and content of this table be made a bit more clear with some discussion in the text? | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle   | 110       | 2919      | 110       | 2920      | Delete the web link.   | The web link has been deleted   |
| Elise Belle   | 112       | 2923      | 112       | 2923      | Table still to be fully completed.   | Table has been completed in the current version.  |
| Harald Pauli  | 112       | 2923      | 112       | 2923      | you may consider climate change in this table  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 112       | 2923      |           |           | Readers might be confused if the relationship between units of analysis and biomes is not clarified.   | This relationship is provided in Chapter 1.   |

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|-----------------|-----------|-----------|-----------|-----------|---|---|
| Cristobal Diaz  | 113       | 2926      | 121       | 3208      | I suggest in point 3.3.2. Ocean systems to consult more advanced references because a big proportion have more than ten years, mainly for situation of mangroves, coral reefs, submerged aquatic vegetation. I think personal that Caribbean need more analysis.  | We have endeavored to treat the Caribbean more thoroughly to the extent it was possible                         |
| André Mader     | 113       | 2931      |           |           | Perhaps the completely different approach to structure in this section should be explained to the reader  | We appreciate reviewer's comment, but unfortunately we were unable to decipher the full meaning of this comment |
| Giselda Durigan | 108       | 2936      | 109       | 2967      | These "invisible wetlands" have been threatened by land conversion, soil erosion, drainage for crops, excessive water extraction for irrigation, and, recently, by afforestation and pine invasion. They are not protected by law, since the riparian vegetation protected by law (Área de Preservação Permanente) starts where the wetland finishes. | This is the domain of Chapter 4   |
| André Mader     | 113       | 2936      | 114       | 2987      | There is not much information here about where these different systems are found, and in some cases not much text describing them.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.     |
| Giselda Durigan | 109       | 2968      | 109       | 2972      | As a future trend, all threats related to agriculture expansion and afforestation tend to increase, severely jeopardizing these wetlands.   | Future trends are treated in Chapter 5  |

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|---------------------------|-----------|-----------|-----------|-----------|--|---|
| Elizabeth Hess            | 109       | 2974      | 109       | 2975      | Table 3.5 doesn't have Canadian data for temperate and boreal forests or temperate grasslands. Would be nice to include. I believe data exists for both                                  | Data are included for grasslands in the Great Plains from both Canada and the US; the temperate and boreal forest section has been revised to the extent possible, including Canadian experts |
| Elizabeth Hess            | 109       | 2974      | 109       | 2975      | Table 3.5. The reference to trees (~1000) and trees (316, 286 native) in the temperate and boreal forests section is not clear. What do the numbers mean? What does native mean?         | This sentence has been rewritten and the number of natives removed from the text  |
| Elizabeth Hess            | 109       | 2974      | 109       | 2975      | Table 3.5. In the Mediterranean forests woodlands, and scrub sections. California is listed twice, but not clear. Are all data just for California? Should also indicate California, USA | The chapter has been reorganized and rewritten. Hopefully, this is now clear  |
| Elizabeth Hess            | 109       | 2974      | 109       | 2975      | Table 3.5. In the temperate grasslands section. Where is says Midwestern grasslands is that US grasslands. Please verify.  | Data are included for grasslands in the Great Plains from both Canada and the US  |
| Elizabeth Hess            | 109       | 2974      | 109       | 2975      | Table 3.5. Should add USA after Everglades in the Wetlands section   | We have not necessarily endeavored to clarify country associations  |
| Virginia Meléndez Ramírez | 109       | 2974      | 109       | 2974      | Table 3.5 can be improved or use graphs.   | Table 3.5 has substantially been improved in the current version  |

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| Virginia Meléndez Ramírez | 112       | 2980      | 112       | 2980      | Figure will still be complete, check types of vegetation for Mesoamerica. | Figure 3.24 has substantially been completed in the current version   |
| André Mader               | 114       | 2980      | 14        | 2987      | There are no references cited in this subsection.                         | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader               | 114       | 2990      |           |           | Non-Americans might not know where New England is                         | We appreciate reviewer's comment but we would retain the location as it is now                              |
| Elise Belle               | 115       | 3004      | 115       | 3004      | I would suggest deleting figure B as it is a bit difficult to interpret.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| DESP/Sbio/MMA             | 113       | 3014      | 113       | 3017      | Chasmagnathus granulata is currently classified as Neohelice granulata.   | The latin name has been replaced following reviewer's comment.  |

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|--------------------------|-----------|-----------|-----------|-----------|---|---|
| DESP/Sbio/MMA            | 114       | 3018      | 114       | 3022      | "The exotic freshwater mussel, <i>Limnoperna fortunei</i> , was introduced into La Plata Basin in 1991 and has dispersed throughout freshwater systems in Argentina, Paraguay, and Brazil (Darrigan and Drago, 2000). This mussel, which is similar to invasive Dreissinids in North America, has extensively altered benthic communities (Darrigan and Damborenea, 2011).": this information is out of the context considering that the mayor impacts of the mussel <i>Limnoperna fortunei</i> are in the freshwater systems and the session is on marine systems.   | This sentence has been deleted in the current version   |
| United States Government | 116       | 3021      | 116       | 3048      | Recommend providing additional explanation as to why "macroalgal cover increased..." is significant. Further, consider clarifying lines 3034-3036 and 3037-3038 to more clearly explain stressors.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| DESP/Sbio/MMA            | 114       | 3023      | 114       | 3030      | In this session, almost nothing is discussed on the status of mangroves existent in the Americas. It lacks general information, and specific relevant information, such as the mangrove areas from Parnaiba to Oyapock in northern Brazil (with over 7,600 km <sup>2</sup> just along the coasts of the States of Pará and Maranhão, and extensive areas along the coast of the State of Amapá and in the huge Marajó Island), the largest contiguous mangrove in the world. The region has key biodiversity areas for dozens of Nearctic Migratory bird species, for two manatee species and for 78 nationally threatened species of fauna and flora and in the continental platform/shelf (part of the Brazilian Exclusive Economic Zone - EEZ). Moreover, it provides relevant ecosystem services in terms of fish stocks reproduction, accumulation of carbon and protection of the coasts. | Mangroves are treated but likely not as thoroughly as the reviewer would like                               |

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| DESP/Sbio/MMA            | 114       | 3038      | 114       | 3045      | The information provided is generic, and nothing is mentioned on the status of the coral reefs in the Americas. For example, it would be relevant to mention the Abrolhos Reef Bank, located on Brazil's continental shelf. It harbours the highest levels of biodiversity in South Atlantic waters and the world's largest rhodolith bed. It presents a mosaic of different habitats, like mangroves, seagrasses meadows, rhodolith beds, submerged and emergent reefs, and a group of small volcanic islands. Abrolhos also has unique biological formations, such as the large mushroom-shaped reef formations – "chapeirões", and unique geological formations, such as the "buracas" – distinctive depressions in the shelf plain. | The information is treated broadly by necessity   |
| United States Government | 116       | 3046      | 116       | 3047      | Suggest adding a source here that brings evidence to the assertion that OA reduces coral calcification.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Elise Belle              | 117       | 3076      | 117       | 3076      | Provide reference instead of web link.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| United States Government | 117       | 3077      | 117       | 3077      | Consider replacing "plants" with SAV" to better align with the subtitle of this section.  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |

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| DESP/Sbio/MMA | 116       | 3081      | 117       | 3108      | Since 2002, Brazil has a long term coral reef monitoring program, currently coordinated by the Chico Mendes Institute for Biodiversity Conservation (the Brazilian Protected Areas Agency). In 2006, the Ministry of the Environment promoted a compilation of preliminary results and a discussion of the status and perspectives of the program (Ferreira, B. P. & Maida, M. 2006. Monitoring Brazilian Coral Reefs: status and perspectives. Maida. Brasília: MMA/SBF). Because Brazil has the only reef formations in the South Atlantic, we consider relevant the inclusion of a discussion regarding the Brazilian reefs and its monitoring program. | It is true that coral reefs are treated broadly and focus on the Caribbean basin where most of the coral reefs occur in the Americas |
| André Mader   | 118       | 3086      | 118       | 3092      | What is the difference between "marine", "deepwater" and "offshore"? A short explanation would help to understand the discussion.  | A detailed description of this terms will be provided in Chapter 1   |
| André Mader   | 118       | 3086      | 121       | 3208      | The structure of this section is very different to others, for example not including divisions on status, recent trends, and future trends. Might it be more reader-friendly if the same approach was applied here?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.                          |
| André Mader   | 118       | 3093      | 118       | 3106      | Why is this general discussion limited to a topographical paragraph on the Caribbean and a biodiversity paragraph on South America's coasts?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.                          |



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| United States Government | 118       | 3107      | 120       | 3172      | This section overlaps with the discussion starting on page 37; consider revising and integrating these discussions into one section.   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.           |
| United States Government | 118       | 3111      | 118       | 3111      | Northern right whale should be changed to North Atlantic right whale (it is noted correctly on line 961). Monachus schuinslandi should be changed to Neomonachus schauinslandi.  | The sentence has been edited following reviewer's suggestion  |
| Pomerleau, C.            | 118       | 3116      | 118       | 3117      | Resident killer whales, especially the southern resident killer whales are declining. Please consult the most recent scientific literature and modify this sentence accordingly. Also, refer to: <a href="http://www.dfo-mpo.gc.ca/species-especies/profiles-profil/killerWhalesouth-PAC-NE-epaulardsud-eng.html">http://www.dfo-mpo.gc.ca/species-especies/profiles-profil/killerWhalesouth-PAC-NE-epaulardsud-eng.html</a> | The sentence has been edited following reviewer's suggestion. Moreover, the new reference has been added to the text. |
| Elise Belle              | 119       | 3138      | 119       | 3138      | "United Nations for individual species or"   | The sentence has been edited following reviewer's suggestion.   |
| United States Government | 121       | 3179      | 121       | 3180      | Please revise to indicate that not all shark species are in decline. For more information, see: <a href="https://www.nefsc.noaa.gov/press_release/pr2015/scispot/ss1509/">https://www.nefsc.noaa.gov/press_release/pr2015/scispot/ss1509/</a> .  | The sentence has been edited following reviewer's suggestion  |

| Reviewer Name                                 | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations  |
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| The Biodiversity Indicators Partnership (BIP) | 119       | 3190      | 119       | 3190      | "very low" is not accurate. For example, "15% (27 of 180 species) of cartilaginous fishes and 9% (94 of 1102 species) of the bony fishes in the TEP [Tropical Eastern Pacific] are now listed in a threatened category" (Polidoro et al. 2012 Patterns of extinction risk and threat for marine vertebrates and habitat-forming species in the Tropical Eastern Pacific. Marine Ecology Progress Series 448: 93–104. DOI: 10.3354/meps09545). Change "very low" to "relatively low", and add Polidoro et al. citation. | The word "very" has been changed to "relatively" following reviewer's suggestion. Moreover, Polidoro et al. (2012) has been added as reference. |
| Thomas Brooks                                 | 119       | 3190      | 119       | 3190      | "very low" is not accurate. For example, "15% (27 of 180 species) of cartilaginous fishes and 9% (94 of 1102 species) of the bony fishes in the TEP [Tropical Eastern Pacific] are now listed in a threatened category" (Polidoro et al. 2012 Patterns of extinction risk and threat for marine vertebrates and habitat-forming species in the Tropical Eastern Pacific. Marine Ecology Progress Series 448: 93–104. DOI: 10.3354/meps09545). Change "very low" to "relatively low", and add Polidoro et al. citation. | The word "very" has been changed to "relatively" following reviewer's suggestion. Moreover, Polidoro et al. (2012) has been added as reference. |

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| Margarita N. Lavidés | 120       | 3200      | 120       | 3200      | Figure 3.42 and the study by Neubauer et al 2013 is based on stock assessment only and insufficient to determine extinction risk. Extinction risk based on Red List IUCN methodology and criteria should be used here, either at national or regional level. Further, Sea Around Us Project indicated that FAO datasets hugely underestimated the level of exploitation especially for small scale fisheries all around the world. | <p>We appreciate reviewer's comment. However, Fig. 3.42 is not based on stock assessments, but on categorizations by FAO of the exploitation status of species throughout these marine regions. When quantitative population assessments are available, the FAO uses that information, and when they are lacking, the FAO uses qualitative and local information about trends in landings and relative indexes of population abundance. In making these categorizations, FAO accounts for perceived under-reporting of landings data by countries.</p> <p>Paragraph has been re-organized to avoid confusion and to better separate the conclusions based on quantitative stock assessments.</p> |

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| juan comerma  | 121       | 3209      | 121       | 3209      | Large emphasis in South America is on southern countries probably showing a knowledge gap in northern south america like venezuela and Colombia | We appreciate reviewer's comment. The categorizations shown in Fig. 3.42 include information from all countries including Columbia and Venezuela. However, because the total catch in other South American countries like Peru, Chile, Brazil, and Argentina, is much greater than the total catch of Columbia and Venezuela (for example), the weighted averages shown in Fig. 3.42 will intentionally be skewed towards the countries with greater total catch in each of these taxonomic groups |
| Elise Belle   | 121       | 3212      | 121       | 3212      | "(2016), a new species is discovered in the Amazon on average every"  | The sentence has been reworded following reviewer's suggestion.  |
| Elise Belle   |           | 3213      |           | 3214      | "Even regarding well-known taxonomic groups such as mammals, between 1993 and 2008, 42%"  | The sentence has been fixed following reviewer's suggestion.   |

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| Elise Belle   | 122       | 3217      | 122       | 3217      | "particularly deficient, including for species of particular importance for human"   | The sentence has been fixed following reviewer's suggestion.               |
| Elise Belle   |           | 3219      |           | 3219      | Increase size of figures, especially the third one.  | The size of the Figure has been increased following reviewer's suggestion. |
| Elise Belle   |           | 3226      |           | 3226      | "in the marine (and probably freshwater) realms. For the South"  | The sentence has been fixed following reviewer's suggestion.               |
| Elise Belle   |           | 3233      |           | 3233      | Delete first sentence or rephrase.   | The sentence has been rephrased in the current version                     |
| Elise Belle   | 123       | 3237      | 123       | 3244      | You could integrate the two paragraphs of the figure legend (and also delete 'a. All occurrences = all occurrences categories'). | The sentences have been fixed following reviewer's suggestion.             |

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| Elise Belle   |           | 3253      |           | 3253      | "Not being able to include all"   | The sentence has been changed to "not being able to have access"  |
| Elise Belle   |           | 3257      |           | 3257      | "in the world in terms of the new Species Coverage"   | This part of the text has been deleted in the current version.  |
| Elise Belle   |           | 3259      |           | 3259      | "shows high values for this indicator, notably thanks to outstanding"   | This sentence has been edited in the current version  |
| Elise Belle   | 124       | 3264      | 124       | 3264      | Reference?  | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| André Mader   | 124       | 3264      | 124       | 3265      | As far as I understand Hawaii should not be covered here (instead, it is covered by the Asia-Pacific Assessment), while Greenland should be | Reviewer's information is correct. If we get permission to use the map, we will ask to have Hawaii cut off. |

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| Elise Belle         |           | 3266      |           | 3266      | "sampling effort in terms of number of recorded"   | The sentences have been fixed following reviewer's suggestion.   |
| Carlos Alfredo Joly | 122       | 3273      |           |           | I think in this item we should stress that almost all data on Latin America biodiversity is based on occurrence, there is NO information on population sizes let alone genetic data. | A new paragraph in the section on knowledge gaps stressing out the gap between genetic studies and conservation policies has now been added. |

| Reviewer Name        | From Page | From Line | Till Page | Till Line | Comment  | Author Annotations                                      |
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| Margarita N. Lavidés | 122       | 3273      |           |           | <p>Note: The following comments do not refer to Knowledge Gaps only but when done immediately or in the future can be incorporated where relevant within this Chapter, other Chapters of Americas assessment and may be followed by other Regional assessments as well: There are a number of UN and Intergovernmental global initiatives on Biodiversity and Ecosystem Services e.g. Sustainable Development Goals, Aichi Biodiversity Targets, National Biodiversity Strategy and Action Plans, IPBES etc. All of these initiatives have one thing in common where nations and regions will be measured in terms of how successful the initiatives or achievement of targets are, whether partly or wholly: biodiversity indicators. The Biodiversity Indicators Partnership (BIP) offers an opportunity to make available suite of global indicators available from them to support national level reporting and/or NBSAP updating and implementation. These include among others: Marine Trophic Index, Wild Bird Index, Living Planet Index, Red List Index (impacts of fisheries on marine species), Red List Index (impacts of pollution), Red List Index (species used for food and medicine), Ocean Health Index, Red List Index (pollinating species), Nutrition Indicators for Biodiversity. There are several ways that global indicators and/or datasets can be used in national or regional reporting and/or NBSAP updating and implementation: 1. Global indicators can be disaggregated and used at national or regional level e.g. Living Planet Index ; 2. Global indicator methodology can be applied at the national or regional level e.g. Red List Index; 3. Underlying datasets can be utilised for the development of national level indicators, expert assessments etc. While the BIP and UNDP emphasized the use of these global indicators at national level, as indicated in its published Roadmap, I strongly believe these can be very useful as well for IPBES Regional Assessments. Consistent with what the BIP and UNDP indicated in its Roadmap, using these global indicators for IPBES Regional Assessment use has the following advantages: 1. it can assists in</p> | We appreciate the reviewer for sharing this information |



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| Virginia Meléndez Ramírez | 122       | 3273      | 122       | 3273      | 3.4. Knowledge and data gaps: A list of topics that require research is recommended.  | Knowledge gaps are treated                                     |
| Elise Belle               | 125       | 3275      | 125       | 3276      | "Because governments are usually first concerned"   | The text has been edited as required.                          |
| Andrea Larissa Boesing    | 122       | 3280      | 122       | 3280      | I'm not sure if this statement should be maintained given that for well-known groups (like birds and mammals) these rates of discovery are much lower. For birds these numbers decrease to 3-5 species per year. It might give an impression of an over estimation of the real number of species. Just a thought. | This sentence has been deleted in the current version          |
| Elise Belle               |           | 3284      |           | 3284      | "temperate South America not yet covered."  | The sentences have been fixed following reviewer's suggestion. |
| Elise Belle               |           | 3285      |           | 3286      | "in the Andes, which have outstanding biodiversity and where the effects of climate change are occurring faster [...] are to date unrepresented."   | The sentences have been fixed following reviewer's suggestion. |

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| André Mader   | 125       | 3289      |           |           | Is it accurate to say that there are millions (i.e. at least 2 million) species of marine invertebrates in the Americas? Please provide reference. | The sentences have been deleted following reviewer's suggestion. |
| Elise Belle   |           | 3292      |           | 3292      | "most data being only available for less than 10 years."   | The sentences have been fixed following reviewer's suggestion.   |
| Elise Belle   |           | 3295      |           | 3295      | "all otter populations across the Americas are considered to be Endangered on the IUCN Red List or unassessed."                                    | The sentences have been fixed following reviewer's suggestion.   |
| Elise Belle   |           | 3298      |           | 3298      | "Regarding linkages between biodiversity ecosystem functions and services, most of the work comes from"  | This text has been removed from the original document.           |
| Elise Belle   |           | 3300      |           | 3300      | "studies linking biodiversity to other"  | The sentences have been fixed following reviewer's suggestion.   |

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| Rafael Calderón,<br>Carolina Ziehl<br>Quirós, Sandra<br>Quijas Fonseca,<br>Jessica Bravo<br>Cadena, Ana Luisa<br>Santiago Pérez,<br>Miguel Equihua,<br>Virginia Meléndez<br>Ramírez, Antonio<br>de la Mora,<br>Manuel Maass,<br>María Santiago<br>Jiménez, Ricardo<br>Contreras Osorio,<br>Wolke Tobón,<br>David Loreto. | 126       | 3304      | 221       | 6021      | It is important to review the entire literature listed on the references. It seems like not all of them were used. | The document has thoroughly reviewed for missing references. |

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|---------------------|-----------|-----------|-----------|-----------|--|---|
| DECO/Sbio/MMA       | 123       | 3309      | 124       | 3327      | <p>We would like to suggest including some Brazilian initiatives to make data available on line and updated. One of them is the SiBBR, that is an initiative of the Ministry of Science, Technology, Innovations and Communications (MCTIC, in Portuguese), with technical support from the United Nations Environment Program (UNEP) and financial support Of the Global Environment Facility (GEF). The Brazilian Biodiversity Information System (SiBBR) is the first step for Brazil to consolidate a solid national biodiversity data and content infrastructure. More informations are available in <a href="http://www.sibbr.gov.br/">http://www.sibbr.gov.br/</a>.</p> <p>Another Brazilian initiative for data organization, is the "Portal da Biodiversidade" (in Portuguese). The development of the Portal is the result of a partnership between the Chico Mendes Institute for Biodiversity Conservation (ICMBio, in Portuguese) and the Ministry of the Environment (MMA, in Portuguese), with support from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), as part of the Biodiversity Monitoring Project Relevance for Climate at UC level. The Biodiversity Portal aims to make available to Brazilian society data and information on Brazilian biodiversity generated or received by the Ministry of the Environment and related institutions. More informations are available at <a href="https://portaldabiodiversidade.icmbio.gov.br/portal/">https://portaldabiodiversidade.icmbio.gov.br/portal/</a></p> | This is excellent information, but we were unfortunately unable to include it |
| Carlos Alfredo Joly | 125       | 3334      |           |           | It should be mention that there are very few (only two) freshwater ILTER sites and ZERO Marine sites.  | The sentences have been added following reviewer's suggestion.                |

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| Andrea Larissa Boesing | 126       | 3363      | 126       | 3366      | Maybe it would be nice to give some examples of these links between biodiversity ecosystem functions and ES at least for north america subregion. I've seen very nice papers making this link in south america though (e.g. Bello et al. 2015 Science Advances; Kennedy et al. 2016 Biological Conservation). I just felt this last paragraph very inconclusive as a final paragraph. I would like to see a more strong message and maybe a first call for the topics to be discussed in the next chapter. Also, I didn't see any discussion about defaunation. It would be a very nice topic to discuss in terms of biodiversity-mediated ES. | We have endeavored to clarify the linkages between biodiversity and ecosystem function                      |
| Ederson A Zanetti      | 126       | 3367      | 126       | 3367      | There should be a paragraph on the data missing about timber consumption and biodiversity cultivation relationships, if any and how to integrated it to current policies   | We were not able to accommodate this request  |
| Elise Belle            | 20        | -         | 20        | -         | Map is quite coarse. Any better dataset available?   | We haven't been able to track back this comment in the word version, and thus the point remains unresolved. |
| Andrea Larissa Boesing | 32        | Box       | 32        | Box       | Where are located the The Great Lakes? Just give a introduction about the place (as you are giving below in the text) before to introduce all the invasion story. For people outside US it is not evident.   | We did not have space to include an additional map, but they do appear in the maps in Figs 3.2 and 3.12     |

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|-------------------|-----------|-----------|-----------|-----------|---|-------------------------|
| Gilles Seutin/PCA | 51        | Fig 3.26  | 51        | Fig. 3.26 | <p>Canada recognizes the importance of assessing protected areas' connectedness and appreciates the efforts of many organizations toward this, including IPBES, GEO BON and CSIRO. Canada also considers that it is important to recognize that the ability to measure and communicate connectedness is in its infancy. Several approaches and methods are in development and have not yet been adequately assessed. The results presented are for the "Protected Area Connectedness" (in text and figure caption) or "Protected Area Connectedness Index" (in figure itself), but no explanation, source or reference is provided regarding the nature of that index. This needs to be addressed. A factsheet produced by CSIRO and hosted by IPBES (<a href="http://www.ipbes.net/sites/default/files/storyline_geo_bon_csiro_protected_area_connectedness_index.pdf">http://www.ipbes.net/sites/default/files/storyline_geo_bon_csiro_protected_area_connectedness_index.pdf</a>) shows results regarding protected areas connectedness that are substantially different from those in Figure 3.26. Panel b (but not c and d) of Figure 3.26 includes shaded area for each of the trend lines. This suggests that there is a variance or error measure associated with the index, but is not presented in the report or figure legend, and no reference is given. This needs to be addressed. If the shaded area in panel b of Figure 3.26 indeed reflects uncertainty, the statements at line 1190 about increase through time in South America and decrease in North America are unjustified unless statistical analyses (e.g., significance of regression slope) are performed. In the proposed amended text above, Canada assumes such analyses return no significant change. In view of the uncertainties noted above, Canada is concerned about the un-qualified statement "Protected Area Connectedness ... decreased for North America, especially in Canada [emphasis added]." Canadian ecologists consulted for this review failed to identify what type of changes may have occurred in the 2000-2012 period that would have driven such a significant decrease. Canada thus requests a full examination and discussion of these findings</p> | This figure was removed |

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|------------------------|-----------|-----------|-----------|-----------|---|---|
| Brenda McAfee          | 63        | Fig 3.31  | 53        | Fig. 3.31 | Are the forest associated species specific to boreal and temperate forests or all types of forests?                                 | We haven't been able to track back this comment in the word version, and thus the point remains unresolved.                       |
| Andrea Larissa Boesing | 41        | Fig. 3.19 | 41        | Fig. 3.19 | The figure is not self-interpreted at all.  | This figure has been completely redone in the current version.  |
| Andrea Larissa Boesing | 44        | Fig. 3.21 | 44        | Fig. 3.21 | What does mean 'Ca species', "MA species", "NA species"? Also, 14,184 is the total number of species? Just clarify.                 | The text has been edited for clarification.   |
| Harald Pauli           | 21        | Fig. 3.3a | 21        | Fig. 3.3a | net gain/loss in hectares may not be so meaningful some countries, such as Brazil, appear much stronger just because of their size. | We appreciate reviewer's comments, although we are unable to change the data at this stage because that would affect comparisons. |
| Andrea Larissa Boesing | 120       | Fig. 3.42 | 120       | Fig. 3.42 | Maybe to include 0-100% in bottom parts of the graph?   | This figure has been completely redone in the current version.  |

| Reviewer Name            | From Page | From Line     | Till Page | Till Line     | Comment   | Author Annotations  |
|--------------------------|-----------|---------------|-----------|---------------|---|---|
| United States Government | 42        | Figure 3      | 42        | Figure 3      | The Kemp's ridley box is left blank, which is confusing. Please add additional text to specify that no arrow is included since the trend is not reported via IUCN. The most public trend info that we have is in the NMFS/FWS five-year review from 2015. | As no trend has been reported for this species, no trend is reported in the Figure. Caption has been updated to clarify this point. |
| Andrea Larissa Boesing   | 31        | Figure 3.10   | 31        | Figure 3.10   | Could you also include a picture of this species? No one knows what a <i>Eschscholzia californica</i> is.   | That would be really appropriate but unfortunately we have severe space constraints.  |
| Andrea Larissa Boesing   | 23        | Figure 3.4    | 23        | Figure 3.4    | a quick explanation about what means 'z-transformed' species richness?  | The term "z-transformed" has been deleted from the current version.   |
| Andrea Larissa Boesing   | 23        | Figure 3.4    | 23        | Figure 3.4    | Any other way to present the map of 'soil pathogenic fungi'? The way it is, seems that there is nothing in the blank parts. Maybe to include some color about 'unknown status'.   | This figure has been deleted in the current version.  |
| Andrea Larissa Boesing   | 35        | Figure legend | 35        | Figure legend | Why 'raw' species richness?   | The term "raw" has been removed to avoid confusion.   |



| Reviewer Name          | From Page | From Line    | Till Page | Till Line   | Comment  | Author Annotations   |
|------------------------|-----------|--------------|-----------|-------------|--|--|
| Andrea Larissa Boesing | 27        | Figures      | 28        | Figure<br>s | I understand the reason why global maps are shown in this section. However, I don't think it is helping. I can suggest to maintain the focus only in America...even if it implies to mask the origem of invasive species. Even though it is a very nice information, the focus here is to discuss invasion as a driver of biodiversity loss.   | Maps have been checked to represent only the Americas in the current version |
| Co-chairs              | 26        | Table<br>3.2 | row<br>11 |             | in what sense is "value" in "landscape value" being used? If there has been some measure of how useful the trails are and this is reduced, make it clear it is that form of monitized "value". But if it is some ecological metric of how natural or diverse the place or the biodiversity at the place is, choose a different word than "value" that more clearly conveys what is being homogenized, independent of the value system of the reader. |  |
| Andrea Larissa Boesing | General   |              |           |             | Many parts of the text need a careful english review   | The text has thoroughly been reviewed for appropriate English                |
| Andrea Larissa Boesing | General   |              |           |             | Most graphs have very small labels which makes the understanding very difficult  | Graphs have been checked and modified accordingly.                           |

| Reviewer Name       | From Page | From Line | Till Page | Till Line | Comment   | Author Annotations   |
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| Carlos Alfredo Joly | 88        |           |           |           | <p>INCLUDE THE PARAGRAPHS BELOW THAT ARE FROM</p> <p>Joly, C.A.; Metzger, J.P. &amp; Tabarelli, M. 2014. Experiences from the Brazilian Atlantic Forest: ecological findings and conservation initiatives. <i>New Phytologist</i> 204: 459–473 doi: 10.1111/nph.12989 Ecosystem services provided by the Atlantic Forest</p> <p>The importance of the Atlantic Forest goes beyond the maintenance of its rich and diverse biota. The Atlantic Forest also provides a broad set of relevant ecosystem services, that is, the direct and indirect contributions of ecosystems to human wellbeing (TEEB, 2010). First, the Atlantic Forest provides water for 125 million Brazilians, representing three-quarters of the country's population.</p> <p>Water provided by the Atlantic Forest is important not only for drinking but also for producing electricity, mainly in the Parana River watershed. The complex of reservoirs and dams within the Atlantic Forest produces c. 130 GWh (62% of Brazil's production) and includes the second-largest hydroelectric power station in the world, Itaipu (<a href="http://www.itaipu.gov.br/en">http://www.itaipu.gov.br/en</a>). Additionally, the Atlantic Forest provides food. The fruits of the Myrtaceae species, as well as those of palms, legumes and passion flowers (<i>Passiflora</i> spp.), are an important component of the diet of traditional and local people, while other species provide important raw materials such as fibres (Satyanarayanaa et al., 2007) and oils (Apel et al., 2006). The most widely recognized Atlantic Forest fruit is that of the monkey puzzle tree/Brazilian pine (<i>Araucaria angustifolia</i>). Hunting of native species is not permitted in Brazilian territory, although many traditional populations still rely on vertebrates of the Atlantic Forest as a complementary source of protein (Hanazaki et al., 2009). Although proof is scarce, the Atlantic Forest cover probably affects the productivity of adjacent estuarine areas and coral reefs, which historically support subsistence and commercial fisheries along the Brazilian Atlantic coast</p> | NCPs are treated largely in Chapter 2 but are summarized broadly in Chapter 3 by units of analysis and subrgion in Figure 3.25 |

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|----------------|-----------|-----------|-----------|-----------|--|--------------------|
| Daniel P Faith |           |           |           |           | <p>Great job on these chapters! Comments specific to particular chapters/lines follow further below, but the initial following comments I think are relevant to the SPM and both chapters 2 and 3. The references for these comments are at the bottom of this review form (but some references from the quoted text from Faith 2017 are listed only in that paper, so I have attached also that paper). The scoping for chapter 2 indicates that it will assess NCPs including the status/trends of the NCPs. The scoping for chapter 3 indicates that it will build on the chapter 2 assessment of NCPs and look at the status/trends of biodiversity and ecosystems with an eye to how that influences NCPs. These tasks normally are a close fit, but are in fact overlapping in the case of NCP18. NCP18 is mostly about the contribution of biodiversity itself in providing “maintenance of options” or “option value”. For example, NCP18 refers to “Benefits (including those of future generations) associated with the continued existence of a wide variety...” Living variety is of course another way of saying “biodiversity”. This NCP18 benefits statement echoes the oldest discussions of the value of biodiversity itself as a benefit (following e.g. Haskins 1974; reviewed in Faith 2017*). *Faith 2017 summarised: “this link between biodiversity and human well-being actually traces back to the “pre-history” of “biodiversity” (roughly, the history of the term before it was invented). Haskins (1974: 646) summarised an important discussion meeting where participants called for “an Ethic of Biotic Diversity in which such diversity is viewed as a value in itself and is tied in with the survival and fitness of the human race”. Haskins (1974: 646) warned, “Plants and animals that may now be regarded as dispensable may one day emerge as valuable resources” and that extinction “threatens to narrow down future choices for mankind”. Roush (1977: 9) similarly argued that “diversity increases the possibility of future benefits” (for review, see Farnham 1997). IUCN’s (1980: section 3) arguments for the conservation of diversity (referring to “the range of</p> |                    |

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| Daniel P Faith |           |           |           |           | for chap 2 or 3 as discussed above; here are draft diagrams extracted from pubs in the reference list; also emailed to TSU  |  |
| Daniel P Faith |           |           |           |           | <p>Reference list for the diagram below</p> <ul style="list-style-type: none"> <li>• Arrieta, Jesús M., Sophie Arnaud-Haondb, and Carlos M. Duartea (2010) What lies underneath: Conserving the oceans' genetic resources. PNAS <a href="http://www.pnas.org/cgi/doi/10.1073/pnas.0911897107">www.pnas.org/cgi/doi/10.1073/pnas.0911897107</a></li> <li>• Barker, GM 2002 Phylogenetic diversity: a quantitative framework for measurement of priority and achievement in biodiversity conservation BIOLOGICAL JOURNAL OF THE LINNEAN SOCIETY Volume: 76 Issue: 2 Pages: 165-194</li> </ul> | We have treated linkages between biodiversity and ecosystem function; we broadly present patterns in different metrics of diversity; and we provide a summary of the contributions of each biome in each subregion to NCPs |
| Grant Moir     | General   |           |           |           | 'Better coupling at a local level of environmental and developmental policies to foster sustainable development'...can be attained by closely sharing and understanding of related BES technical information amongst users (e.g. establish a common language at the earliest stages; must be attained amongst the diverse planning and development levels, data producers etc. required for greater understanding of BES data/technical information/mutual objectives)  | We appreciate reviewer's comment but we believe this part would better fit in Chapter 3.   |
| Grant Moir     | General   |           |           |           | Within the context of cities and the urban/rural interface; this presents areas where tools like GIS and asset integration can have a great positive impact Re: management systems of ecosystem assets in conjunction with non-natural assets; many challenges to overcome; but once assets are established, ecosystem services and their benefits are then often easier to establish, valuate, and correlate with NCP's  | We appreciate the reviewer for sharing this information  |

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| Grant Moir           | General   |           |           |           | GIS Related on local level - Re: integrated access to information as per assets in a government setting etc; Standardizing the integrated information and making it available as a template within and for other communiities as a decision making tool; likely many with less resources in many communities could benefit   | We appreciate reviewer's comment but we believe this part would better fit in Chapter 3.          |
| Grant Moir           | General   |           |           |           | Tools for this could include approaches to more closely integrating grey and green assets and using GIS related eco-management for planning of information can help; or development of this type of tool for more general distribution and uses; Develop standardized tools, user friendly, accessible, and understandable, could be of benefit and adaptable regardless of the location   | This is a nice suggestion but we were not able to incorporate it                                  |
| Leticia Pina         | 21        |           | 21        |           | Figure 3.3.b.: It is not clear the source of the data. Please kindly consider that Excel file sent to request data has Argentina and Bolivia under Caribbean countries, so this would cause differences when calculating totals per sub regions  | This figure has been deleted in the current version.  |
| Margarita N. Lavidés |           |           |           |           | There are a number of grammatical errors and misspelled words.   | The whole document has been thoroughly checked for grammatical mistakes                           |
| Thomas Brooks        |           |           |           |           | The IPBES definition of "biodiversity" includes "ecosystems" (see e.g. <a href="http://www.ipbes.net/sites/default/files/downloads/IPBES_2_INF_2_Add.1.pdf">http://www.ipbes.net/sites/default/files/downloads/IPBES_2_INF_2_Add.1.pdf</a> ). So, avoid use of phrases like "biodiversity and ecosystems", which is a tautology and unnecessary repetition. Instead, either a) if the intent is to refer to "ecosystems" a specific level of ecological organisation, then delete "biodiversity", b) if the intent is to refer to "biodiversity" generally, delete "ecosystems", or c) replace "biodiversity" with something like "genetic diversity, species, and ecosystems". Examples that need correcting include Page 2 (Line 28), Page 12 (Lines 379, 380, 382, 385, etc). | We appreciate reviewer's comment very much and we will pay more attention in further assignments. |

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| Volpedo, Alejandra Vanina |           |           |           |           |  | -  |
| Virginia Meléndez Ramírez |           |           |           |           | It is suggested to include conclusions section.  | A conclusions section was originally included, but we are currently working on a synthesis for the TOD.  |
| Cristobal Diaz            | General   |           | General   |           | I am not a high level specialist in biodiversity and ecosystems in the Caribbean, but I understand that more specialists on the Caribbean Region need to be engaged in Chapter 3 (only three are of Trinidad and Tobago-2 LA and 1 Contributor; and one of a Contributor of Saint Lucia) in order to help in the valorations that are realized of the Caribbean - english, spanish, ne therlands countries and others. | We appreciate reviewer' comment. This has been a major problem. We have asked the Caribbean LA to get in touch with other experts and sent names |
| Cristobal Diaz            | 24        |           | 24        |           | I suggest to improve the Figures 1.2 and 1.6   | Figures 3.2 and 3.6 have been excluded from the current version.   |
| André Mader               | General   |           |           |           | The distinction between alien species and invasive (or alien invasive) is often unclear.   | The text has been checked and modified accordingly where the terms "alien" and "invasives" were unclear.   |
| André Mader               | General   |           |           |           | Note that the word "pattern" is often used in headings, and then later substituted with "status". It would be good to be consistent with terminology.  |  |

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| André Mader   | General   |           |           |           | There seems to be very little cross-referencing to other chapters  | This is being attended to. All the material on future trends have been sent to Chapter 5 at the request of the Co-chairs                             |
| André Mader   | General   |           |           |           | There seems to be a lot of variability between different sections. For example, some of them cover a description of the topic, the status, recent trends and future trends. Others cover these but without subheadings; others exclude one or more of them. Greater consistency in this regard could really enhance readability. | We appreciate reviewer's comment on this. Unfortunately, the text has been developed by a number of LAs, leading to some structural inconsistencies. |
| André Mader   | General   |           |           |           | Figures are not always referred to sufficiently in the text  | References to Figures have been checked and added accordingly  |
| André Mader   | General   |           |           |           | Quite often vague adjectives (e.g. many; surprising diversity; ...) are used. It might be better to provide specifics, and avoid using vague terminology.  | The text has been thoroughly revised to avoid this kind of terms.  |
| André Mader   | General   |           |           |           | In most cases there is little or no description of where each of the systems/biomes is located, and what its extent is. Could you include a brief description for each? If maps are used, it would probably be best to do that for all biomes.   | This kind of information is provided in Chapter 1.   |
| André Mader   | General   |           |           |           | There are very few figures in some of the systems sections, including some very long ones. Better uniformity could enhance readability   | We appreciate reviewer's comment but unfortunately we do not have enough space to provide extra Figures.   |

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| André Mader   | General   |           |           |           | Many genus and species names are not italicized  | Latin names of species have been checked and formatted in italics in the current version               |
| André Mader   | General   |           |           |           | It would be really useful to have a sentence or two describing each biome when it is introduced                                  | This kind of information is provided in Chapter 1.   |
|               |           |           |           |           |  | -  |
| André Mader   | 43        | 1010      | 44        | 1049      | It seems like the contents of this section that discuss invasion and its dynamics should be captured in chapter 4, and not here. | Invasive species are only included here as complementary comment. They are fully covered in Chapter 4. |