

Comment form for 2nd Review Phase of the Deliverable 2b) Regional and subregional assessments of biodiversity and ecosystem services for Africa, Chapter 3 ‘Status, trends and future dynamics of biodiversity and ecosystems underpinning nature’s contributions to people’

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Elise Belle (EB)
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Harald Pauli (HP)
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Neil Burgess (NB)
Rael Loon (RL)
Resit Akcakaya (RA)
Salif Diop (SD)
South Africa (SA)
Stuart Butchart (SB)
Susan Ringrose (SR)
The Biodiversity Indicators Partnership (BIP)
Thomas Brooks (TB)
Tim Hirsch (TH)

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
1	South Africa (SA)	1	1	86	2611	Cross reference to the LDRA (Land Degradation and Restoration Assessment) report is lacking on aspects of degradation throughout Chapter 3, including bush encroachment and climate change. These are comprehensively dealt with in the IPBES Land Degradation and Restoration Assessment Second Order Draft Chapter 3 and 4, and should be used as source material for this Africa Regional Assessment.	Bush encroachment and Climate changes are discussed in depth in Chapter 4 as drivers of biodiversity loss. The focus of this chapter is mainly on the current status of biodiversity and ecosystem services and their likely future dynamics.
2	South Africa (SA)	1	1	86	2611	General comments about the whole of chapter 3: This chapter is incomplete and poorly written, making it difficult to review. There are many places in which the text or figures are incomplete (denoted by, for example, "GAP" or "Please suggest references" or "To be developed further". The authors do not seem to have done a thorough literature search, as even well known papers and documents are not used and the literature that is used does not necessarily represent the most recent or most relevant literature on various subjects. section 3.6 on Data gaps and Section 3.7 Conclusions and Recommendations are completely absent. Suggest that this draft be withdrawn and reviewers should be given opportunity to comment on a more complete draft 3.	Reviewed and addressed

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
3	Rael Loon (RL)	3	85			"...about 100 000 known species on insects, spiders and other arachnids..." There are over 150 000 invertebrates in southern Africa alone (SANBI)	The suggested phrase added
4	Rael Loon (RL)	3	148			"healthy ecosystems are conserved socio-ecosystems" anthropocentric statement. Could clarify with "those ecosystem which include local people and are responsibly managed may be referred to as 'socio-ecosystems' "	changes made as suggested
5	Rael Loon (RL)	3	84			(IUCN, 2016) not in references?	(IUCN, 2016) is added in references
6	Chantal Cahu (CC)	3	109	3	110	91% are endemic to the continent and therefore globally important. Définir ce que veut dire globalement important dans ce cas	changes made as suggested
7	Rael Loon (RL)	3	95		97	Alternatively suggest rephrase "...illegal trade has resulted in the significant decline of many species of wild fauna and flora."	rephrased
8	Ignela Sahondra Randriantsizafy (ISR)	3	100	3	102	Forty four million hectares of lowland humid forests, representing 25% of the total forest area, are under timber-harvest concession (Established but incomplete). -1- Even if it is incomplete, it would be more appropriate to cite the sources.	changes made as suggested
9	Rael Loon (RL)	3	82		83	Inaccurate statistics. Should read "Africa is home to approximately 1100 species of mammals, about one fifth of the world's 5450 species, including 194 species of primates."	The sentence now reads "Africa is home to over one quarter of world's 5450 mammal species.
10	Elizabeth Milne (EM)	3	107	3	118	Invertebrates should also be mentioned under freshwater biodiversity. Although they do not	Biodiversity mentioned under freshwater biodiversity

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						directly play a huge role in livelihoods of people, they play a vital role in the functioning of the freshwater ecosystems	
11	Thomas Brooks (TB)	3	79	3	87	Key message C1 is well-constructed and referenced. On Line 86, add citation to the key reference on biodiversity hotspots, Mittermeier et al. (2004) Hotspots: Revisited. CEMEX, Mexico.	Thank you! References should not be added to key messages
12	South Africa (SA)	3	93	3	94	Most "rangelands" are in arid/semi-arid ecosystems. Why make a difference here?	deleted "rangelands and "
13	Rael Loon (RL)	3	98			need reference after "...25-40 % of mammal species in national parks."	References are not to be added to key messages. For literature used, please refer to sections quoted in []
14	South Africa (SA)	3	96	3	96	Not ONLY white rhinoceros! Many black rhinos too and lately lions.	rephrased to "...which has, for example, resulted in the near..."
15	Rael Loon (RL)	3	84			suggest change 'alongside' to 'as well as'	changes made as suggested
16	Elizabeth Milne (EM)	3	89	3	91	This heading mentions "increased poverty". Poverty of what? Poverty of biodiversity or poverty of humans? This is not reflected/described in the summary beneath it either. I would suggest that the summary at least clarify/defines this "poverty" statement in the heading and provide a brief explanation of how biodiversity loss has led to poverty.	already addressed as described in H3
17	Elise Belle (EB)	3	82	82	3810	Throughout the document: check consistency in the use of the comma in numbers	Commas have been used to separate thousands throughout the document.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
18	IUCN SSC / SANBI- Domtiila Raimondo (DR)	3	137	5	144	Why is there no reference to the extinction status of wild species based on statistics available from the IUCN's Red List http://www.iucnredlist.org/ . There should be a summary of the major threats impacting Africa's species.	section on threats (3.3.1) has included references from IUCN Red List
19	Elise Belle (EB)	4	125	4	125	"species. However, due to overexploitation"	changes made as suggested
20	Resit Akcakaya (RA)	4	120	4	150	A key message on extinction risk is missing. A new key message should focus on status and trends in extinction risk. See comment on Ch.3 p.9.	the extent of extinction and implications for human wellbeing has been captured in C2; but need to be considered
21	Stuart Butchart (SB)	4	120			Add information in this paragraph on the Red List Index, which shows that species in Africa are sliding ever faster towards extinction. See Butchart et al 2007 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000140 and Brooks et al 2016 https://www.nature.com/articles/sdata20167	Noted - reference consulted
22	Ignela Sahondra Randriantsizafy (ISR)	4	130	4	131	Africa contains 19% of mangrove cover, however, an estimated 20-30% have been lost in the past 25 years, with deforestation rates of 1.7% per year (Established but incomplete). -1- Even if it is incomplete, it would be more appropriate to cite the sources.	The sentence rephrased and sources of information cited.

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23	Stuart Butchart (SB)	4	160			Also emphasise the importance of expanding protected area coverage of the most important African sites for biodiversity i.e. Key Biodiversity Areas, in this section. See Butchart et al 2012 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529 , Butchart et al 2015 http://onlinelibrary.wiley.com/doi/10.1111/conl.12158/abstract , and Brooks et al 2016 https://www.nature.com/articles/sdata20167	The importance of expanding protected areas is emphasized in section 3.3.2.1
24	Thomas Brooks (TB)	4	132	4	132	Chapter 3 includes useful key messages on trends in African ecosystems (Lines 89-131) and genetic diversity (Lines 133-144), but is lacking a key message on trends in African species. I recommend that such a key message be added (insert at Line 132), specifically on extinction risk across the African region (and its subregions) and on the _rate_ at which species in the region (and its subregions) are sliding towards extinction, which is documented by the Red List Index. This indicator has a strong scientific basis (http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000140), as well as policy alignment given that it is used to track progress towards SDGs Target 15.5 and Aichi Target 11 (https://www.bipindicators.net/indicators/red-list-index). It is an IPBES "core" indicator (http://www.ipbes.net/sites/default/files/dow	It would indeed be informative have a key finding on number of extinctions in Africa. But due to scarcity of data, commenting on trends of species extinction is impossible.

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						nloads/pdf/ipbes-5-inf-5.pdf, p10) and included in Chapter 1, Table S4 (Page 74, Line 2611). Data for this indicator, disaggregated to the Africa region and its subregions, were published in https://www.nature.com/articles/sdata20167 . The Americas regional assessment SOD Chapter 3 (Pages 43-46, Lines 1074-1122 + Figures 3.21, 3.22, and 3.23) and the Europe & Central Asia regional assessment SOD Chapter 3 (Pages 5-6, Lines 177-187; Pages 108-109, Lines 3060-3079 + Figure 3.45; & Pages 140-143; Lines 4012-4098 + Figure 3.54) could be used to provide helpful templates for development of text and figures to underpin such a key message.	
25	South Africa (SA)	4	133	4	133	The matter about increasing GM organisms, especially crops, has to be highlighted under this section (C5).	The comment is found to be relevant to chapter 4 in particular as it deals with drivers of biodiversity loss in Africa, and GM is one of such drivers
26	Thomas Brooks (TB)	4	160	5	177	This key message on protected areas is important and useful, but needs to be expanded to reflect the importance of expansion in coverage by protected areas of key biodiversity areas, given the crucial importance of protected areas in safeguarding the biodiversity of important sites (http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529), as well as policy	The key message of importance of protected areas is added as well as in chapter 4

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						alignment given that this indicator is used to track progress towards SDG Targets 14.5.1, 15.1.2, 15.4.1 and Aichi Target 11 (https://www.bipindicators.net/indicators/protected-area-coverage-of-key-biodiversity-areas). It is an IPBES "core" indicator (http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-inf-5.pdf , p10) and included in Chapter 1, Table S4 (Page 73, Line 2611). Data for this indicator, disaggregated to the Africa region and its subregions, were published in https://www.nature.com/articles/sdata20167 . The Europe & Central Asia IPBES regional assessment SOD Chapter 3 (Page 5, Lines 170-176; Pages 105-108, Lines 3015-3059 + Figures 3.42, 3.43, 3.44) could be used to provide a helpful template for development of the text and figures to underpin such a key message.	
27	Elizabeth Milne (EM)	4	148	4	150	This paragraph is very short and incomplete. In fact, I cannot make sense of what the authors are trying to say here... please revise and provide a clear and more descriptive paragraph for this section	The paragraph is expanded
28	Elizabeth Milne (EM)	4	154	4	158	This sentence does not make sense to me: "...because of the relative dearth of scientific biodiversity studies relative to other regions." What other regions? Are the authors implying that other regions are less studied than Africa? I would imagine that indigenous knowledge is	The sentence rephrased.

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						in fact important due to the dearth of scientific biodiversity studies relative to Africa. Maybe this is what the authors are implying, but the wording then needs to be restructured to provide a clear understanding of what the authors are trying to say.	
29	South Africa (SA)	5	172	5	172	Also mention the Kgaladi Transfrontier Park between Botswana and South Africa (SA) and the Richterveld Transfrontier Park between South Africa (SA) and Namibia.	Kgaladi Transfrontier Park mentioned
30	Elise Belle (EB)	5	163	5	163	What is the reference? This figure does not seem to be accurate. I would replace by: 'The extent of protected areas in Africa has almost doubled in the last decades from 2,662,816 km2 in 1990 to now 5,201,340 km2; protected areas now cover 14.4% of land areas and inland waters (4,341,081 km2) and 5.5% of coastal and marine areas under national jurisdiction (860,258 km2) (UNEP-WCMC and IUCN, 2017). Reference: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net .	changes made as suggested
31	Rael Loon (RL)	6	217		219	"...developed culture and relations with other fauna species over 2my." suggest rather "...who relied on and interacted with the natural environment."	Suggested text has been added
32	Chantal Cahu (CC)	6	196	6	196	"11% of biodiversity would be lost, with higher rates of loss" pas clair	Have deleted "with higher rates of loss and added it is predicted that

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33	Thomas Brooks (TB)	6	199	6	200	Add "according to the IUCN Red List" or similar text.	Suggested text has been added
34	Chantal Cahu (CC)	6	212	7	237	ce paragraphe sur l'antropologie doit etre distinct de la partie précédente sur les aires protégées. Cette partie est tout a fait interessante, mais il y a une sorte de contardiction avec le début de l'introduction disant que l'étude porte sur les 10-15 dernières années.	Suggestion noted
35	Rael Loon (RL)	6	220		221	Edit: "Africa was also home to H.naledi - presumably of the closest members of the hominoid family...H.erectus, H.habilis and ultimately H.sapiens."	Suggested text has been added
36	South Africa (SA)	6	210	6	212	Here and in other places in the chapter (e.g. lines 366-368, and 418-419) the information on the number and extent of protected areas in Africa seems out of date. The source here is dated 2008.	the updated information from IPBES knowledge and data is added in chapter 4
37	Harald Pauli (HP)	6	186	6	187	I'm missing a Figure/map showing the sub-region units at a glance, which would be helpful given that these units are used in the further assessment	Such a map is incorporated in chapter 1 of the assessment report
38	Elise Belle (EB)	6	196	6	196	Lost by when? Delete ', with higher rates of loss' or clarify	Have deleted "with higher rates of loss"
39	Thomas Brooks (TB)	6	198	6	198	Provide evidence to support the claim that "Over 120 plant species are extinct". Checking the IUCN Red List (http://www.iucnredlist.org) reveals that 17 plant species occurring in North Africa and Sub-Saharan Africa are Extinct, and a further 7 Extinct in the Wild.	this phrase is omitted.

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40	Thomas Brooks (TB)	6	199	6	199	Similarly, provide evidence behind the statement that "another 1,771 threatened with extinction". Checking the IUCN Red List (http://www.iucnredlist.org) reveals that 2610 plant species occurring in North Africa and Sub-Saharan Africa are threatened.	Brooks et al., 2016a
41	Thomas Brooks (TB)	6	212	6	212	This would be another appropriate place to mention the extent of protected area coverage of African key biodiversity areas (see above), given the crucial importance of protected areas in safeguarding the biodiversity of important sites (http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529), as well as policy alignment given that this indicator is used to track progress towards SDG Targets 14.5.1, 15.1.2, 15.4.1 and Aichi Target 11 (https://www.bipindicators.net/indicators/protected-area-coverage-of-key-biodiversity-areas). It is an IPBES "core" indicator (http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-inf-5.pdf , p10) and included in Chapter 1, Table S4 (Page 73, Line 2611). Data for this indicator, disaggregated to the Africa region and its subregions, were published in https://www.nature.com/articles/sdata20167 . The Europe & Central Asia IPBES regional assessment SOD (Chapter 3, Page 5, Lines 170-176; Pages 105-108, Lines 3015-3059 + Figures	Information on coverage of African key biodiversity areas is incorporated.

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						3.42, 3.43, 3.44) could be used to provide a helpful template for development of such text and figures.	
42	Neil Burgess (NB)	6	212			Why not use World Database on Protected Areas or the UNEP-WCMC protected planet report 2016 for updated numbers and stats on protected areas? https://www.protectedplanet.net/c/protected-planet-report-2016	Data from IPBES Knowledge and data task force is used.
43	Rael Loon (RL)	7	245			"...and other pressures etc" add "were examined"	Suggested text has been added
44	Elise Belle (EB)	7	227	7	227	"abide to societies that view"	Suggested text has been added
45	Rael Loon (RL)	7	244			Delete "CITES, CMS", suggest rather add sentence: "Other sources of information on indicators include Multi-lateral Environmental Agreements on Biological Diversity such as CITES and CMS."	Suggested text has been added
46	Elise Belle (EB)	8	267	8	267	"values they provide are highlighted in Chapter 2 and Chapter 4, including"	"will be treated" has been deleted
47	Rael Loon (RL)	8	285		287	Amphibian and reptiles should be before invertebrates. Estimate for number of reptile species?	Text has been corrected
48	Rael Loon (RL)	8	271			change 'were also be" to "will also be"	Text has been corrected
49	Elizabeth Milne (EM)	8	285	8	286	I would suggest making reference to "other invertebrates" rather than "other arachnids", because there are so many invertebrates that do not fall within the mentioned taxa, i.e. "insects, spiders and other arachnids"	Suggested text has been added

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50	Rael Loon (RL)	8	286			Probably much higher diversity of invertebrates	Need to find another recent reference with updated number of invertebrates
51	CSIR BES	8	295	9	298	Table 3.1 Not all taxa included? Is this speaking to policy-makers?	Table 3.1 is intended to provide an estimated number of species for major taxonomic groups at sub-regional level
52	Rael Loon (RL)	8	295	9	297	Table 3.1. Certain arbitrary designations. Suggest amend to include 'Odonata' with general estimates of insects. 'Turtles' with general estimate of reptiles. 'Waterbirds' with general estimate of birds. 'Aquatic plants' with general estimate of plants.	Odonata is included to represent freshwater insects
53	Ignela Sahondra Randriantsizafy (ISR)	8	295	9	296	Table 3.1: Estimated numbers of species by major taxonomic group. -1- When the table hold on several pages, make the header line visible for each page, in order to facilitate reading	This comment is hard to comprehend.
54	Harald Pauli (HP)	8	295	9	297	Table 3.1: is there any data for all (vascular) plants? - in the subsequent table 3.2 there are at least percentages of the proportion of CITES species listed, therefore some numbers for all vascular plants seem to be available for the sub-regions	Data on vascular plants for the sources used didn't not exist that's is why it is only integrated in the subsequent table 3.2
55	South Africa (SA)	8	295	9	298	Table 3.1: the number of mammal taxa in southern Africa is given as 13. However, in South Africa (SA) alone there are 320 mammal species, based on the most recent national Red List assessment of mammals. 9see Child MF, Roxburgh L, Do Linh E, Raimondo D, Davies-	References noted

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						Mostert HT, editors. 2016. The Red List of mammals of South Africa (SA), Swaziland and Lesotho. South Africa (SA)n National Biodiversity Institute and Endangered Wildlife Trust, South Africa (SA)).	
56	Elizabeth Milne (EM)	8	292	8	293	The authors make reference of megafauna, but what about for example termites who play a a very similar role as ecosystem engineers. Termites also act as food source to rural villages; I also do not see any mention being made of pollinators. Pollinators play a direct role in the availability of food for humans.	Relevant examples like elephants, hippotamus are given.
57	Neil Burgess (NB)	8	285			UNEP-WMCM, should read UNEP-WCMC	Text has been corrected
58	IUCN SSC / SANBI- Domtiila Raimondo (DR)	8	278	8	293	Why is there no mention of plant diversity in Africa, the African Plant Names Database provides all names http://www.ville-ge.ch/musinfo/bd/cjb/africa/index.php .	Plant species discussed in those chapters are African plants
59	Thomas Brooks (TB)	9	300	9	302	Add citation to the key reference on biodiversity hotspots, Mittermeier et al. (2004) Hotspots: Revisited. CEMEX, Mexico.	Citation added
60	Stuart Butchart (SB)	9	299			Add information on the extinction risk of species and the Red List Index which shows that species in Africa are sliding ever faster towards extinction. See Butchart et al 2007 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000140 and Brooks et al 2016 https://www.nature.com/articles/sdata20167	Information added

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61	Chantal Cahu (CC)	9	317	9	321	données sur 38 ans. C'est certainement laphrase du début de l'introduction qu'il faut changer, l'étude est sur une période plus large que 10-15 ans. Plusieurs références, fort heureusement , datent de plus de 15 ans.	Suggestion noted
62	Neil Burgess (NB)	9	313			Easy to add threatened species numbers and maps for the region. Brooks et al. 2016 (see above link) provides most of these data	Information added
63	Thomas Brooks (TB)	9	305	9	309	I don't think that this work is suitable for downscaling for presentation at regional scales: the map makes no sense relative to well-known patterns. For example, the Guinean Forests of West Africa are a well-documented biodiversity hotspot, with just 15% of their historical habitat extent remaining (Mittermeier et al. 2004). How can they possibly emerge in this analysis as >100% "intact". I recommend deleting Figure 3.1.	changes made as suggested
64	Elise Belle (EB)	9	302	9	304	Incomplete paragraph	Paragraph completed
65	Elise Belle (EB)	9	313	10	315	Incomplete paragraph	Paragraph completed
66	Resit Akcakaya (RA)	9	297	9	310	Information should be added here on on status and trends in extinction risk, based on the IUCN Red List and other information. A useful reference is Brooks et al. https://www.nature.com/articles/sdata20167 .	Information added
67	Neil Burgess (NB)	9				It would be easy to add more information on hotspots from the 2004 Hotspots book or CEPF / CI website. And also easy to add biodiversity pattern maps in the region - for example in Brooks et al. 2001 in Bioscience	More information on biological hotspots added in table 3.3

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						https://academic.oup.com/bioscience/article/51/8/613/220520/Toward-a-Blueprint-for-Conservation-in-Africa A-new and various papers sinnce that time	
68	Thomas Brooks (TB)	9	299	9	299	Line 299 would be the appropriate point at which to incorporate a couple of paragraphs of text and relevant figures on trends in African species, specifically on extinction risk across the African region (and its subregions) and on the _rate_ at which species in the Africa region (and its subregions) are sliding towards extinction, which is documented by the Red List Index. This indicator has a strong scientific basis (http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000140), as well as policy alignment given that it is used to track progress towards SDGs Target 15.5 and Aichi Target 11 (https://www.bipindicators.net/indicators/red-list-index). It is an IPBES "core" indicator (http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-inf-5.pdf , p10) and included in Chapter 1, Table S4 (Page 74, Line 2611). Data for this indicator, disaggregated to the Africa region and its subregions, were published in https://www.nature.com/articles/sdata20167 . The Americas regional assessment SOD Chapter 3 (Pages 43-46, Lines 1074-1122 + Figures 3.21, 3.22, and 3.23) and the Europe & Central Asia regional assessment SOD Chapter 3 (Pages 5-6,	Information added

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						Lines 177-187; Pages 108-109, Lines 3060-3079 + Figure 3.45; & Pages 140-143; Lines 4012-4098 + Figure 3.54) could be used to provide helpful templates for development of such text and figures.	
69	IUCN SSC / SANBI- Domtiila Raimondo (DR)	9	299	299		Line 299: Text and figures should be added here on status and trends in extinction risk, based on https://www.nature.com/articles/sdata20167	Information added
70	IUCN SSC / SANBI- Domtiila Raimondo (DR)	9	313	9	314	Why has the threat section for species not been completed in this draft? This data is readily available from the IUCN's website.	Information added
71	Rael Loon (RL)	9	320			WWF 2012, Living Planet Index not in references?	this figure is omitted from the chapter
72	Elise Belle (EB)	10	320	10	320	Figure not referenced in text.	The figure is now cited in text
73	Chantal Cahu (CC)	10		13		les tableaux 3.2 et 3.3 méritent un petit commentaire explicatif	
74	CSIR BES	10	323	11	327	Table 3.2, please say what appendices are	Appendices in CITES reports
75	Ignela Sahondra Randriantsizafy (ISR)	10	323	11	326	Table 3.2: The number of species listed by CITES (to Appendix I, II or III) for birds, mammals, fishes, amphibians and plants (first column) in each of the regions of Africa and the corresponding percentage (second column) of the total for the taxon [source: https://cites.org/eng/disc/ac_pc.php]. -1- When the table hold o several pages, make the header line visible for each page, in order to facilitate reading	changes made as suggested

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76	The Biodiversity Indicators Partnership (BIP) (BIP)	10	320	10	321	This statistic is out-of-date and the method for calculating the LPI has changed. This needs to be recorded in the text. Suggested text: 'shows average decline of 39% in vertebrate populations over a 38 year period (compared to 30% global decline and 59% across the tropics over the same time period*). *These statistics are not current but are comparable to Figure 3.2 We don't have a published version of the most recent LPI for the Africa region but there is a possibility that this can be made available for this chapter if needed	Statistic is updated
77	Thomas Brooks (TB)	11	329	13	331	Not clear what this table is. It appears to draw from http://www.iucnredlist.org/ . However, it is not appropriate to document simple numbers at each assessment period, because numbers change because of "non-genuine" causes (e.g. changing taxonomy, new data about declines, etc) as well as "genuine" causes (e.g. increasing threat, successful conservation impact). Clarify. Regarding change over time in African species extinction risk, the most important issue is to add relevant text and figures on the Red List Index: see comment on Line 299 above.	Table deleted
78	Stuart Butchart (SB)	11	329			Numbers of species listed as threatened, or with different population trends, change over time largely because of improved knowledge and changing taxonomy. Therefore use the Red List Index which factors out such non-genuine	Noted.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						changes and shows only genuine trends in extinction risk.	
79	Harald Pauli (HP)	11	327	11	327	Table 3.2: at amphibians, 'zero' is entered at North and South Africa (SA) - it presume that this should be replaced by N/A not available.	Zero to mean "data not available"
80	CSIR BES	11	329	13	331	Table 3.3 not clear	Deleted
81	Edson Gandiwa (EG)	11		11		Table 3.3 The table is not clear, need to relook at it	Table deleted
82	Harald Pauli (HP)	11	330	13	331	Table 3.3, table caption is missing. I'm not sure if it makes much sense to enter numbers on a yearly basis; it would indicate an inter-annual fluctuation, but, in fact, I take it is just different levels of data availability	Table deleted
83	Rael Loon (RL)	11	330	13	331	Table 3.3. not explained in the text?	Table deleted
84	Ignela Sahondra Randriantsizafy (ISR)	11	329	13	330	Table 3.3: [source: from Leadley et al., 2014]. - 1- Add a title to a table. -2- When the table hold on several pages, make the header line visible for each page, in order to facilitate reading	Table deleted
85	Elise Belle (EB)	11	329	13	331	Table not referenced in text. I would also summarise the table, or possibly only presenting the totals.	The table is deleted
86	Rael Loon (RL)	14	338			Add "and habitat loss..."	changes made as suggested
87	Rael Loon (RL)	14	336		337	Add 'and lions'.	"lions" added
88	Elise Belle (EB)	14	337	14	338	Not only. I would also add the destruction and degradation of habitats as main risk factors. This section is also incomplete.	This information is now incorporated in Table 3.5: " the most frequently reported threats in protected areas (Schulze et al., 2018)

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
89	Elise Belle (EB)	15	354	15	354	Figure number missing.	Figure number added
90	IUCN SSC / SANBI- Domtiila Raimondo (DR)	15	354	359	314	Mention the three hotspots in South Africa (SA), and the fact that the Cape Flora Region is one of the 6 global plant kingdoms and is unique to South Africa (SA)	We considered only the main hotspots.
91	Amadou Camara (AC)	15	377	15	381	Niumi/Saloum (The Gambia/Senegal, an important transboundary protected area has not been mentioned.	
92	Elise Belle (EB)	15	365	15	366	Old data. Delete 'Protected areas cover [...] (Brooks et al., 2006)' and replace with: 'Protected areas cover 14.7% (19.8 million km ²) of Earth's land and inland waters, 4.12% (14.9 million km ²) of the global ocean and 10.2% of coastal and marine areas under national jurisdiction (UNEP-WCMC and IUCN, 2016). Also add to reference list as: UNEP-WCMC and IUCN (2016). Protected Planet Report 2016. UNEP-WCMC and IUCN: Cambridge UK and Gland, Switzerland.	changes made as suggested
93	Rael Loon (RL)	15	352		353	Suggest summarize the '8 biodiversity hotspots' here. Refer to Conservation International's Critical Ecosystem Partnership Fund.	Table 3.6: Biodiversity hotspots and projects threats by urban growth (Source: van Vliet et al., 2017).
94	Chantal Cahu (CC)	16		16		figure 3.3 n'a pas de légende	The map is deleted.
95	Ignela Sahondra Randriantsizafy (ISR)	16	386	16	387	Figure 3.3: -1- Put a title for the figure. -2- Specify the units of the segments represented in the legend of the figure.	The map is deleted.
96	Elise Belle (EB)	16	386	16	386	Figure title missing, and reference to figure missing in the text.	Missing information added

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
97	Marie-Lucie Susini (MLS)	16	386	16	386	No reference to Figure 3.3 in the text. Caption is missing.	The map is deleted.
98	Chantal Cahu (CC)	16	298	16	298	qu'est qui décline? La taille, la biodiversité des écosystèmes ?	Biodiversity and ecosystems
99	Rael Loon (RL)	16	393			ZSL/WWF, 2012 not in references	Added in references
100	Stuart Butchart (SB)	17	421			Also refer to the protected area coverage of Key Biodiversity Areas, which has increased but remains inadequate. See Butchart et al 2012 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529 , Butchart et al 2015 http://onlinelibrary.wiley.com/doi/10.1111/conl.12158/abstract , and Brooks et al 2016 https://www.nature.com/articles/sdata20167	Butchart et al., 2012 reference used to improve the content of paragraph describing the protected are coverage of Key Biodiversity Areas.
101	South Africa (SA)	17	437	62	1808	Section 3.4 on sub-regional analysis seems s=weak and poorly researched, making the data gaps seems much larger than they are. References used are the key issue - the authors give impression that there is lack of data to use in the assessment. This is not the case for southern Africa at least.	Considered during the review
102	South Africa (SA)	17	437	62	1808	section 3.4 There is a disjunction between Chapter 10 1.2.4 "units of assessment" and the assessment in Chapter 3. The units of assessment identified in chapter 1 are not referred to in chapter 3, but should be. Cross walking of regional data to the high-level units mentioned in chapter 1 should be made explicit.	Cross reference to be provided (Chapter 1)

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
103	South Africa (SA)	17	437	62	1808	Section 3.4: The sub-regional analysis could benefit from reference to the map of Standardised Terrestrial Ecosystem types of Africa available at http://www.aag.org/cs/publications/special/map_african-ecosystems (Sayre, R., P. Comer, J. Hak, C. Josse, J. Bow, H. Warner, M. Larwanou, E. Kwlbessa, T. Bekeke, H. Kehl, R. Amena, R. Andriamasimanana, T. Ba, Benson, T. Boucher, M. Brown, J. Cress, O. Dassering, B. Friesen, F. Gachathi, S. Houcine, M. Keita, e. Khamala, D. Marangu, F. Mokua, B. Morou, L. Mucia, S. Mugisha, E. Mwavu, M. R utherford, P. Sanou, S. Syampungani, B. Tomor, A. Vall, J. Vande Weghe, E. Wangui and L. Waruingi. 2013. A New Map of Standardized Terrestrial Ecosystems of Africa. Washington, DC: Association of America Geographers. 24 pages	Suggested references added and information from them synthesized.
104	Moha Haddouch (MH)	17	452	18	453	The arganeraie Biosphere Reserve, , the Oases Biosphere Reserve of Southern Morocco, the Atlas Cedar Biosphere Reserve and the Intercontinental Mediterranean Biosphere Reserve. Andalusia (Spain) –Morocco	Done
105	Amadou Camara (AC)	17	418	17	419	This information may be out of date. It also does not include community protected areas.	Updated information on protected area coverage of Key Biodiversity Areas included.
106	Thomas Brooks (TB)	17	418	17	424	This paragraph is useful as stands. However, it should be complemented with some text and figures of the extent of protected area coverage of African key biodiversity areas (see	Suggested references used to improve the follow of the paragraph

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						<p>above), given the crucial importance of protected areas in safeguarding the biodiversity of important sites http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032529), as well as policy alignment given that this indicator is used to track progress towards SDG Targets 14.5.1, 15.1.2, 15.4.1 and Aichi Target 11 https://www.bipindicators.net/indicators/protected-area-coverage-of-key-biodiversity-areas). It is an IPBES "core" indicator http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-inf-5.pdf, p10) and included in Chapter 1, Table S4 (Page 73, Line 2611). Data for this indicator, disaggregated to the Africa region and its subregions, were published in https://www.nature.com/articles/sdata20167. The Europe & Central Asia IPBES regional assessment SOD (Chapter 3, Page 5, Lines 170-176; Pages 105-108, Lines 3015-3059 + Figures 3.42, 3.43, 3.44) could be used to provide a helpful template for development of such text and figures.</p>	
107	Elise Belle (EB)	17	411	17	411	<p>You could also add the following reference: '2016), and important shifts in species distribution in West Africa (Baker et al., 2015). Baker D.J., Hartley A., Burgess N.D., Butchart S.H.M., Carr J.A., Smith B.R.J., Belle E., Willis S.G. 2015. Assessing climate change impacts for</p>	Suggested references used and added to the references

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						vertebrate fauna across the West Africa protected area network using regionally appropriate climate projections. Diversity and Distributions 21: 991-100.	
108	Ignela Sahondra Randriantsizafy (ISR)	18	468	18	469	...however, recent human encroachment and overuse of resources are currently threatening these rich forests. -1- Cite the sources of such an assertion	Done
109	Thomas Brooks (TB)	18	464	18	464	Add citation to BirdLife International (2016) http://www.iucnredlist.org/details/full/22697488/0 assessing the species as Critically Endangered	Done
110	Thomas Brooks (TB)	18	463	18	463	Add citation to Butynski et al. (2008) http://www.iucnredlist.org/details/full/12561/0 assessing the <i>Macaca sylvana</i> as Endangered	Done
111	Thomas Brooks (TB)	18	463	18	463	Add citation to Karamanlidis & Dendrinou (2015) http://www.iucnredlist.org/details/full/13653/0 assessing the <i>Monachus monachus</i> as Endangered	Done
112	Edson Gandiwa (EG)	18		19		Figs 3.4 and 3.5, consider showing the data as Tables	Not considered
113	Marie-Lucie Susini (MLS)	18	454	18	454	hotspots should be hotspot	Done
114	Moha Haddouch (MH)	18	466	18	468	Morocco is the 2nd largest biodiversity hotspot in the Mediterranean region with 31.000 flora and fauna species, its 9 million hectares of forests cover are what used to be once part of one of the world's most dense forests with emblematic species of worldwide importance	Source of data not credible/data old and incorrect

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						such as Cedar (<i>Cedrus Atlanticus</i>) and Argan (<i>Argania Spinosa</i>). The country accounts for 5 ecosystems (forests and steppes, Saharans, marines and coastal, wetlands and caves), 930 endemic plant species, 17 biodiversity corridors, 10 national parks, 3 biosphere reserves and 24 RAMSAR sites. 70% of the country's surface water is produced in mountainous areas inhabited by 30% of the population (Bergigui, M.F. 2014). Bergigui, M.F. 2014; Analysing the role of the new constitution in enabling effective environment policy making; UNITAR-Yale conference, UNDP Morocco,.	
115	Thomas Brooks (TB)	18	462	18	463	Not clear what the citation is for Barbary Leopard being CR. Stein et al. (2016) http://www.iucnredlist.org/details/full/15954/0 do not assess subspecies, and assess the species overall as Vulnerable.	Done
116	Marie-Lucie Susini (MLS)	18	461	18	461	rich is not explicit in this context. Does it mean species richness of mammals or big populations of certain species? It is different... Rephrase please.	Done
117	Rael Loon (RL)	18	455			The Mediterranean hotspot contains 22 500 species of plant (11 700 endemics), 226 species of mammals (25 endemics), 489 bird species (25 endemics), 230 reptiles (77 endemics), 79 amphibians (27 endemics) and 216 freshwater fish (63 endemics) (Critical Ecosystem Partnership Fund.)	Done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
118	Elise Belle (EB)	18	458	18	458	Why 'three continents'? I would say 'two continents'.	Done
119	Marie-Lucie Susini (MLS)	18	461	18	461	why write 'but only a few' It seems that authors want to minimize the number of endemic species. Use instead simply 'and some species are endemic, such as...'	Done
120	Thomas Brooks (TB)	19	497	19	497	Add citation to Alaoui et al. (2011) http://www.iucnredlist.org/details/full/34126/0 assessing the form <i>Abies pinsapo</i> var. <i>marocana</i> as Endangered	Done
121	Chantal Cahu (CC)	19	483			expliquer ce qu'est la perte nette de carbone; c'est exprimé par ha, mais est-ce aussi par an?	Year
122	Elise Belle (EB)	19	473	19	473	Figure not cited in the text, and could be deleted and figures presented in text instead.	Cited line 459
123	Harald Pauli (HP)	19	494	19	496	I assume that the High Atlas also has many endemic plant species, if not the most among the sub-ranges (but not mentioned here); citation 'Berrahmouni & Regato, 2014' missing in the references	Not found
124	Harald Pauli (HP)	19	489	19	489	the following is not only forest, but also high-mountain (alpine) vegetation without trees; therefore I suggest to replace with: 'Mountain forest and alpine vegetation'	Done "Mountain forest "
125	Elise Belle (EB)	20	499	20	499	"Mountains (Arumugam et al., 2008). Only 1% of mountain areas are found within protected"	Done
126	Thomas Brooks (TB)	20	521	20	521	Add citation to IUCN SSC Antelope Specialist Group (2016) http://www.iucnredlist.org/details/full/512/0 assessing the species as Critically Endangered	Done: Niger is not in North Africa

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
127	Michael Olusegun Ogundele (MOO)	20	524	20	524	Repetition of " most (serious threat) (serious threat) to North Africa's mountain.." one should be removed	Done
128	Marie-Lucie Susini (MLS)	20	524	20	524	serious threat is repeated twice	Done
129	Ignela Sahondra Randriantsizafy (ISR)	20	501	20	501	The region's mountains have an average human density of 15 people/km2 (UNEP – Olivia's stats for 2015). -1- What is "Olivia's stats for 2015" ?	Census of mountain populations (UNEP 2015)
130	Ignela Sahondra Randriantsizafy (ISR)	21	532	22	537	Table 3.4: List of forest species found in North Africa 532 terrestrial ecosystem. -1- Cite sources for "Area (ha) in Lybia(4)", "Area (ha) in Egypt(5)", "Area (ha) in Mauritania(6)". Why areas of Lybie, Egypte and Mauritanie do not have figures ? -3- When the table hold on several pages, make the header line visible for each page, in order to facilitate reading	Done
131	Elise Belle (EB)	21	532	21	532	Table only referenced in the text in the High Mountain Forest section, but this table seems to encompass al forest types. Please clarify.	Table is now cited in text.
132	CSIR BES	21	532	22	537	This table heading is misleading as these are not all forest species but perhaps just plant species- this should be clear. It is also not clear why it is specifically important to have these species highlighed over others on the continent- how do they link to GQL of policy targets?	Done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
133	Elise Belle (EB)	23	540	23	540	"The protected area of Siwa, in Egypt, includes 53 plant species, 28 wild mammals, including 7 rare species" (onl 7 species cited and not 8)	Done
134	Chantal Cahu (CC)	23	572	24	606	les phrases, lignes 572 et ligne 606, concenrnant l'egypte donnent deux messages assez différents	Sentence rephrased
135	Thomas Brooks (TB)	23	551	23	567	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	Done
136	Elise Belle (EB)	24	593	24	594	"of Sudan is arid [...] desert ecosystems [...] area of Sudan".	Done
137	Marie-Lucie Susini (MLS)	24	607	24	607	species OF antelopes	Done
138	Thomas Brooks (TB)	24	614	24	621	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	Not Done: probably IUCN Red List 2017
139	Elise Belle (EB)	25	625	25	625	"cities were found in North Africa"	Done
140	Chantal Cahu (CC)	25	625	25	630	conséquences pour la biodiversité?	Done
141	Marie-Lucie Susini (MLS)	25	626	25	626	sentence not clear: 'while in 1990, there is one additional 1-5 million sized city'. Should be written in past tense since refers to 1990?	Done
142	Elise Belle (EB)	26	670	26	670	"have a direct impact"	Done
143	Chantal Cahu (CC)	26	670	26	671	citer quelques natural disasters comme exemple	Done
144	Ignela Sahondra Randriantsizafy (ISR)	27	716	27	718	Most of the Sudan Mangroves are included in the NP of Red Sea and we can assume they are stable (but no DATA available on the trends). - 1- Who are "we" ? -2- Why not write : "There is	Done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						no data available on the trends" directly instead of "(but no DATA available on the trends)"	
145	Elise Belle (EB)	27	697	27	698	The first sentence could be deleted as it is a repetition from the previous section.	Done
146	André Mader (AM)	28	722	29	724	Ecosystem types in figure do not all correspond with those in the text. Also, the table is placed after the aquatic text, instead of after within the text on terrestrial systems.	Done
147	CSIR BES	28	722	29	724	Table 3.5 is largely subjective e.g. 'no great change' relative to what? It would be good to perhaps include some kind of classification scheme perhaps with arrows or colours linked to degree of degradation or decline, trend etc. It is also not clear where the information is from	Done
148	Ignela Sahondra Randriantsizafy (ISR)	28	722	29	723	Table 3.5: Types and status of terrestrial ecosystems in North Africa. -1- When the table hold o several pages, make the header line visible for each page, in order to facilitate reading	Done
149	Harald Pauli (HP)	28	722	28	722	Table 3.5: What is meant with 'steppes tree' and 'steppes of high altitudes (cold) and how to distinguish the latter from 'mountain'; the terms 'steppe' does not really fit to the vegetation occurring in Africa.	Corrected
150	Elise Belle (EB)	28	722	28	722	This table is only cited on line 1769 in the section on Southern Africa, it is thus not in the right place here, or the legend is incorrect. Is it	Corrected/ deleted from line 1769

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						about North Africa only? Or Southern Africa, or both? Please clarify.	
151	Thomas Brooks (TB)	30	734	35	886	A key reference for this whole section is the recent and comprehensive Mallon et al. (2015) An IUCN situation analysis of terrestrial and freshwater fauna in West and Central Africa https://portals.iucn.org/library/node/45226 . I recommend drawing from this throughout the section.	Mallon et al., (2015) added in text and to the references
152	Marie-Lucie Susini (MLS)	30	765	30	765	are being should be replaced by 'were' (it is finished)	Done
153	Marie-Lucie Susini (MLS)	30	765	30	765	are being should be replaced by 'were' (it is finished)	considered and modified
154	Chantal Cahu (CC)	30	734			au debut de la partie concernant chaque zone géographique de l'Afrique, rappeler précisément le périmètre de cette zone	Chapter 1
155	Thomas Brooks (TB)	30	672	30	673	Citation not appropriate here; correct to use the data from http://www.iucnredlist.org/ , available for the IPBES Central African region in https://www.nature.com/articles/sdata20167	Central Africa
156	Elise Belle (EB)	30	728	30	728	Missing section.	Section developed
157	Chantal Cahu (CC)	31	789	31	791	à compléter	Completed
158	André Mader (AM)	31	799	31	799	According to IUCN the western black rhinoceros is now extinct	verified and deleted
159	Rael Loon (RL)	31	805			Garamba (add 'Black') rhinos	considered and modified
160	Harald Pauli (HP)	31	779	31	791	High mountain forest' is not suitable, but instead should be: 'Mountain forest and high mountain (alpine) vegetation'; the term 'high	Verified and changed to "High mountain habitats"

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						<p>mountain' denominated the area above the treeline.</p> <p>The most prominent high mountains of Central Africa are the western slopes of Rwenzori and the Virungas (the eastern ones already in East Africa), which host a unique afro-alpine flora including giant-rosette plants (Schmitt and Beck 1992), forests are home of mountain gorillas. On the western margin of Central Africa, Mount Cameroon represents an isolated high mountain volcano. Northernmost Central Africa includes the Tibesti mountains, highest mountain massif of the Sahara (at least according to the UN geoscheme).</p> <p>Reference: Schmitt K, Beck E 1992. On the afroalpine vegetation of Ruwenzori Mountains, Uganda. Phytocoenologia 21: 313 - 332.</p>	
161	Elise Belle (EB)	31	779	31	791	Incomplete section	Section completed
162	Rael Loon (RL)	31	797			Last known 'population' (not 'populations')	considered and modified
163	Chantal Cahu (CC)	31	800	31	801	noms communs des espèces?	TSU, procedure for scientific names for all assesment
164	Chantal Cahu (CC)	31	803	31	804	pas clair	Sentence clarified
165	Marie-Lucie Susini (MLS)	32	816	32	816	antelope should be antelope	considered and modified
166	Elise Belle (EB)	32	818	32	819	Delete 'There is one protected area the Fada Achei [...] (WCMC, 2000)' as this reference is very old. There are now many more protected areas in this biogeographical unit in the WDPA.	deleted

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
167	Ignela Sahondra Randriantsizafy (ISR)	33	855	35	857	Table 3.6: African Mangroves extension and trends -1- When the table hold o several pages, make the header line visible for each page, in order to facilitate reading	This table is deleted
168	Marie-Lucie Susini (MLS)	33	855	35	857	Table 3.6: African Mangroves extension and trends' should be placed somewhere else since it refers to the whole continent, thus should not be incorporated in section '3.4.2. Central Africa'. The table should be completed. Columns were too many data are missing should be deleted (such as column 'Inhabitants' for instance	This table is deleted
169	Elise Belle (EB)	33	855	33	855	This table is only cited on line 1115 in the section on East Africa, and line 1455 in the section on West Africa. It is perhaps not in the right place here, or it should be cited in all the other sections too if relevant.	This table is deleted
170	Elise Belle (EB)	33	856	35	857	Upper cases could be used in 5th column. Third column: where does the data come from? If the WDPA, it should be updated with 2017 data. How are Western mangroves and Northern rivers defined? Not explained in the text. Last column: there are a number of PAs found in wetlands which are not Ramsar sites, this list is therefore very incomplete.	This table is deleted
171	Elise Belle (EB)	35	863	35	864	"Africa and ranges over 10 countries [...] surface water flow"	considered and modified
172	Marie-Lucie Susini (MLS)	35	878	35	881	the beginning of the paragraph should be rewritten because it gives the list of	reviewed and addressed (see comments 59 and 47)

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						consequences of threats no not the threats themselves (however the threats are given between brackets...)	
173	Marie-Lucie Susini (MLS)	35	878	35	878	there ARE various...	considered and modified
174	Elise Belle (EB)	36	891	36	891	"of mangrove habitat"	considered and modified
175	Elise Belle (EB)	36	901	37	904	Delete '(or Western group (and Pacific (or Eastern group))' or rephrase. This table is also refered to in other sections than only Central Africa, so clarify if it is about mangroves found in the whole Africa region.	Not clear why the reviewer is suggesting these modifications
176	Marie-Lucie Susini (MLS)	36	892	36	892	Doula should be Douala	considered and modified
177	André Mader (AM)	36	901	37	905	It is not clear what this table is illustrating.	This table illustrates type of Mangroves at species level found at different locations in Africa
178	Chantal Cahu (CC)	36	901	37	905	pourquoi les tableaux concernant les mangroves sur tout le continent africain se trouvent dans le sous chapitre Afrique centrale?	Table is placed there given the density of mangroves in Central Africa
179	Marie-Lucie Susini (MLS)	36	901	36	905	Table 3.7: African biogeographical regions' is general and should be placed elsewhere, not under 'central africa'	Placed under central Africa because that where the used data sources start to list Mangrove species.
180	Ignela Sahondra Randriantsizafy (ISR)	36	901	37	905	Table 3.7: African biogeographical regions: Atlantic mangrove (or western group (and Pacific (or Eastern group). -1- When the table hold o several pages, make the header line	Modified to fit in one page.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						visible for each page, in order to facilitate reading	
181	Elise Belle (EB)	37	907	38	909	Same comment as above. "Mangroves' contributions to people in Africa" I would name first column 'Type of ecosystem services', and design them as follows: Regulating, Supporting, Provisioning, and Cultural. In 'Nutrient cycling and biodiversity', keep only 'Biodiversity' and merge the five cells underneath. In food, delete 'Mangrove forests, tidal channels and associated ecosystems' and keep only 'Agro-sylvo-pastoral resource [...]' "Leaves and fruits of medicinal" Last cell: "inspired by the mangrove"	The table on "Mangroves' contributions to people in Africa is being shared with chapter 2.
182	Marie-Lucie Susini (MLS)	37	908	38	909	Table 3.8: Mangrove's Contributions to People in Africa' is general and should be placed elsewhere, it applies to the whole continent, not only 'central africa'	Yes, it does apply to the whole continent, not only "Central Africa"
183	Ignela Sahondra Randriantsizafy (ISR)	37	907	38	909	Table 3.8: Mangrove's Contributions to People in Africa. -1- When the table hold on several pages, make the header line visible for each page, in order to facilitate reading	The table on "Mangroves' contributions to people in Africa is being shared with chapter 2.
184	Elise Belle (EB)	38	914	38	915	Replace 'Hippo' by 'Hippopotamus'; "A unique feature"	considered and modified
185	Elise Belle (EB)	39	920	39	920	"there are no transnational"	considered and modified
186	Marie-Lucie Susini (MLS)	39	952	39	952	there is missing before have been	considered and modified

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
187	Ignela Sahondra Randriantsizafy (ISR)	39	959	40	994	Tropical and subtropical dry and humid forest. - 1- There is not figure represented spatial distribution of forests	do you mean map or figure; or need to delete Figure 3
188	Rael Loon (RL)	40	979			"...and the most endangered reptiles in the world..." add "...and one of the most endangered reptiles in the world..."	done
189	Elise Belle (EB)	40	966	40	966	"which are endemic to Madagascar"	Corrected
190	Marie-Lucie Susini (MLS)	40	986	40	986	are should be IS	Corrected
191	Rael Loon (RL)	40	997			Burgess, N.D., et al 2007. The biological importance of the Eastern Arc Mountains of Tanzania and Kenya. Biological conservation, 134(2), pp.209-231.	Burgess et al., 2007 incorporated on reference section
192	Ignela Sahondra Randriantsizafy (ISR)	40	995	40	997	High Mountain forest <<GAP HERE – Please suggest references>> - 1 - References propositions : - a - http://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_5/b_fdi_12-13/15715.pdf : "Forêts et Fourrés de montagnes à Madagascar" , - b - https://agritrop.cirad.fr/513421/1/document_513421.pdf : "Dynamiques des forêts naturelles de Madagascar".	Suggested references used to improve this section.
193	Harald Pauli (HP)	40	995	40	997	High mountain forest' is not suitable, but instead should be: 'Mountain forest and high mountain (alpine) vegetation'; the term 'high mountain' denominated the area above the treeline. Suggest to add:	Suggested references used to improve this section.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						<p>'East Africa boasts the most prominent and partly glaciated high mountain areas, with Kilimanjaro, Mt. Kenya and Rwenzori; glaciers, however, rapidly shrinking (Kaser et al. 2004). They host unique montane forests and afro-alpine vegetation mit giant rosette plants (Schmitt and Beck 1992; Hemp 2006). Other important, although not glaciated, high mountains in euquatorial East Africa are Mount Elgon, Mount Meru and the Virgunga Mountains, showing similar vegetation types as the former ones. Further north, larger high mountain areas occur in Ethiopia, with the Simien and Bale mountains (Egziabher 1988). Trends: Both landuse impacts and climate change are threatening montane forests and afro-alpine vegetation in East Africa, such as on Kilimanjaro (Hemp 2009) and tropical alpine giant rosette plants, such as the Ethiopian Lobelia rhynchopetalum, were reported to face very high risk of extinction following climate warming (Chala et al. 2016).</p> <p>References: Kaser, G, Hardy DR, Mölg T, Bradley RS, Hyera TM 2004. Modern glacier retreat on Kilimanjaro as evidence of climate change: observations and facts. Int. J. Climatol. 24: 329–339. Schmitt K, Beck E 1992. On the afroalpine vegetation of Ruwenzori Mountains, Uganda.</p>	

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						<p>Phytocoenologia 21: 313 - 332.</p> <p>Hemp A 2006. Vegetation of Kilimanjaro: hidden endemics and missing bamboo. Afr. J. Ecol., 44, 305–328.</p> <p>Egziabher TBG 1988. Vegetation and environment of the mountains of Ethiopia: Implications for utilization and conservation. Mountain Research and Development 8: 211-216.</p> <p>Hemp A 2009. Climate change and its impact on the forests of Kilimanjaro. Afr. J. Ecol., 47 (Suppl. 1), 3–10.</p> <p>Chala D, Brochmann C, Psomas A, Ehrich D, Gizaw A, Masao CA, Bakkestuen V, Zimmermann NE 2016. Good-bye to tropical alpine plant giants under warmer climates? Loss of range and genetic diversity in <i>Lobelia rhynchopetalum</i>. Ecology and Evolution, doi 10.1002/ece3.2603.</p>	
194	Marie-Lucie Susini (MLS)	40	977	40	977	one OF the primary habitats	Corrected
195	Rael Loon (RL)	40	997			Plumptre, A.J., et al, 2007. The biodiversity of the Albertine Rift. Biological conservation, 134(2), pp.178-194.	Plumptre et al., 2007 incorporated on reference section
196	Rael Loon (RL)	40	997			Relevant biodiversity hotspot is the East Arc Mountains (Critical Ecosystem Partnership Fund).	considered and modified
197	Thomas Brooks (TB)	40	978	40	980	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
198	Marie-Lucie Susini (MLS)	40	1001	40	1001	use same writing for 'savanna' (either with or without H but same throughout the document)	done
199	Elise Belle (EB)	41	1005	41	1005	"threatened species, such as the black rhinoceros, <i>Diceros bicornis</i> , which is Critically Endangered (IUCN Red List 2017). This region"	done
200	Marie-Lucie Susini (MLS)	41	1005	41	1005	such AS black	done
201	André Mader (AM)	41	1023	41	1023	This statistic seems to contradict (or overlap with) the 75% savanna statistic provided earlier?	Statistics corrected
202	Thomas Brooks (TB)	41	1033	41	1034	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	done
203	Elise Belle (EB)	42	1050	42	1050	"From 1990, the number of citites in the range if 1-5 million has increased, and through 2030, we expect"	done
204	Elise Belle (EB)	43	1090	43	1090	"economies and the basis for the livelihood of rural populations."	done
205	Salif Diop	43	1114	44	1170	Chapter 3 - East Africa - Suggest to add new references: Diop, S., Scheren, P., Machiwa, J., 2016. Estuaries: a Lifeline of Ecosystem Services in The Western Indian Ocean. Estuaries of the World Series. Springer International.	References added
206	André Mader (AM)	43	1121	43	1128	Might this be better placed in chapter 2?	the comment not clear enough to gauge why the suggestion
207	Marie-Lucie Susini (MLS)	43	1114	43	1115	not clear as to what 'coverage' refers to? Is it mangrove?	considered and modified
208	Elise Belle (EB)	44	1133	44	1134	"Madagascar, Giri and Muhlhausen (2008) found a loss of"	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
209	André Mader (AM)	44	1154	44	1154	Should this be "thought to be used and inhabited by spirits"?	done
210	Marie-Lucie Susini (MLS)	44	1159	44	1159	there should be a sentence here 'Protection and Payments for Environmental Services/ PES'	deleted
211	Elise Belle (EB)	45	1178	45	1179	"catches were around [...], continental catches, with the Lake Victoria accounting for 95%"	done
212	Thomas Brooks (TB)	45	1195	51	1386	A key reference for this whole section is the recent and comprehensive Mallon et al. (2015) An IUCN situation analysis of terrestrial and freshwater fauna in West and Central Africa https://portals.iucn.org/library/node/45226 . I recommend drawing from this throughout the section.	Mallon et al., (2015) added in text and to the references
213	Rael Loon (RL)	45	1205			According to the Critical Ecosystem Partnership Fund, 221 species of amphibians, 9000 species of plants including 1800 endemics.	Noted and statistics corrected accordingly
214	Marie-Lucie Susini (MLS)	45	1195	54	1512	please have the whole section ' 3.4.4. West Africa' be reviewed by native EN speakers to improve the text + lack of recent references in general, quite a weak section compared to the general good quality of the document	This section is reviewed by native EN speaker
215	Marie-Lucie Susini (MLS)	45	1203	45	1203	supporting should be 'support'	changes made as suggested
216	Elise Belle (EB)	46	1223	46	1223	After (Mayaux et al., 2013), I suggest adding the following reference: "Furthermore, Carr et al. (2014) have shown that 25% of amphibian species, 26% of bird species and 28% of mammal species are expected to be climate change vulnerable by the end of the century; and most West African vertebrate species are	Sentence modified to fit the already existing text and added.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						projected to have a reduced climate suitability across the region's protected area network (Baker et al., 2015)." Carr, J.A., Hughes, A.F. and Foden, W.B. 2014. A Climate Change Vulnerability Assessment of West African Species. UNEP-WCMC technical report. Baker D.J., Hartley A., Burgess N.D., Butchart S.H.M., Carr J.A., Smith B.R.J., Belle E., Willis S.G. 2015. Assessing climate change impacts for vertebrate fauna across the West Africa protected area network using regionally appropriate climate projections. Diversity and Distributions 21: 991-100.	
217	Thomas Brooks (TB)	46	1222	46	1223	Citation not appropriate here; correct to use the data from http://www.iucnredlist.org/ , available for the IPBES West African region in https://www.nature.com/articles/sdata20167	Data checked and corrected where necessary.
218	Brian Mac Sharry (BMS)	46	1210	46	1210	Map 3.7 dated 2013 does not show South Sudan which has been independent since 2011	We unfortunately could not modified this map due to unavailability of native files used in its production.
219	André Mader (AM)	46	1210	46	1210	This map seems not to cover the same area and system as the text. It might help the reader if the discussion and figure were consistent with the precise subregion discussed in the text.	Text checked and modified to be in-line with what's being represented on the map.
220	Elise Belle (EB)	47	1230	47	1230	"rate of loss of natural"	changes made as suggested
221	Elise Belle (EB)	47	1237	48	1263	Incomplete section.	Gaps are being addressed
222	Harald Pauli (HP)	47	1237	47	1252	no high mountain vegetation exists in the subregion West Africa (according to the UN	section has been rewritten

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						geoscheme); Mount Cameroon and mountains on Sao Tome/Principe, as mentioned below, should be added to the Central Africa chapter (where also mountains on Bioko island should be added).	
223	André Mader (AM)	47	1226	47	226	This map seems not to cover the same area and system as the text. It might help the reader if the discussion and figure were consistent with the precise subregion discussed in the text.	Text checked and modified to be in-line with what's being represented on the map.
224	Elise Belle (EB)	48	1268	48	1268	"and level of degradation largely"	changes made as suggested
225	Michael Olusegun Ogundele (MOO)	48	1284	48	1284	"Dryland and desert" should be moved to the next line to form a new paragraph/heading.	changes made as suggested
226	Marie-Lucie Susini (MLS)	48	1288	48	1289	have the sentence written by a native EN speaker please	Sentence reworded
227	Marie-Lucie Susini (MLS)	48	1267	48	1267	keep same writing for 'savannah' in the whole document	Changed 3 spellings - need to inform other sections
228	Thomas Brooks (TB)	48	1278	48	1283	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	Data checked as suggested and text modified where necessary.
229	Marie-Lucie Susini (MLS)	48	1290	48	1290	which decade?	Between 2000-2010
230	Marie-Lucie Susini (MLS)	49	1323	49	1324	rephrase the whole sentence	urban section is being rewritten and placed in section 3.3
231	Michael Olusegun Ogundele (MOO)	49	1324	49	1324	There is a need for an authority citation and evidence of biogeographical developments that makes Lagos in Western Nigeria a meagcity. If thereare no authority citations/	urban section is being addressed regionally in section 3.3

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						biogeographical evidences that established this fact, I suggest line 1324-1325 should be removed.	
232	Thomas Brooks (TB)	49	1304	49	1316	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	Data checked and corrected where necessary.
233	Elise Belle (EB)	49	1301	49	1301	Where is it poorer than in the Sahel?	deleted sentence
234	Elise Belle (EB)	50	1340	50	1340	"Niger Delta, some 88"	...between 1987 and 2002, in an area [...] lower Niger Delta, approximately 88 [...]
235	Marie-Lucie Susini (MLS)	50	1373	50	1377	these and not this. Have the whole sentences read and rewritten by native EN speakers	sentence rephrased
236	Elise Belle (EB)	51	1382	51	1382	"the region, the pressures"	changes made as suggested
237	Salif Diop	51	1353	53	1475	<p>For West Africa: Add following references: Diop, E.S., 1990. La côte Ouest-Africaine: du Saloum (Senegal) a la Mellacoree (Rep de Guinee). Coll. Etudes et Theses; Editions de l'ORSTOM - Paris, 2 vols plus illustrations and map plates, 379p.</p> <p>Diop, E.S., Gordon, C., Semesi, A.K., 2002. Mangroves of Africa. In: de Lacerda, L.D. (Ed.), Mangroves Ecosystems: Functions and Management. Springer Verlag Environmental Science Series, Berlin, pp. 61 to 121.</p> <p>Diop, S., Barusseau, J.-P., Descamps, C., 2014. The Land/Ocean Interactions in the Coastal Zone of W and C Africa. Estuaries of the World</p>	References added as suggested

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						Series -XXII. Springer International.	
238	Marie-Lucie Susini (MLS)	51	1406	51	1407	for which areas? Considering that line 1412 says that 25% decrease has been observed... please check consistency in text	consistency checked
239	Chantal Cahu (CC)	51	1409	51	1409	Il est fait souvent allusion à la montée du niveau de la mer, dans les différentes parties de ce chapitre, mais il manque quelques données factuelles en exemple de cette élévation.	Sea level trends included
240	André Mader (AM)	51	1390	51	1391	The definition of continental shelf may be misunderstood here. The continental shelf does not include the terrestrial environment. Perhaps substitute "coast"?	Provided in Chapter 1 of the assessment report
241	Marie-Lucie Susini (MLS)	51	1415	51	1415	they refer to what ? It should be replaced by 'Mangroves' or any other word it stands for...	changes made as suggested
242	Marie-Lucie Susini (MLS)	51	1412	51	1413	this sentence gives info that contradicts line 1406. I would not agree to write that a 25% decline is 'moderate'... it is quite alarming... This paragraph might not belong here but earlier in the text (line 1402 for instance) since it is more general...	sentence rephrased
243	Thomas Brooks (TB)	51	1422	52	1426	This text looks good, but double check all data and citations against respective assessments in http://www.iucnredlist.org/	Data checked as suggested and text modified where necessary.
244	Elise Belle (EB)	52	1425	52	1425	"turtle are found: leatherback"	changes made as suggested
245	Marie-Lucie Susini (MLS)	52	1431	52	1431	what does 'best-developed mangroves' means? Not clear...	term is commonly used in various literature
246	Elise Belle (EB)	53	1469	53	1471	Check use of ',' versus ';'.	Checked and corrected

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
247	Chantal Cahu (CC)	53	1484			Remarque GENERALE pour ce chapitre: on ne parle de la biodiversité QUE des espèces au dessus d'une certaine taille. Faut-il déclarer qu'on ne prends en compte que la biodiversité de la megafaune et mégafalore, rien sur meio et micro?	To consider these species on IUCN list
248	CSIR BES	54	1527	57	1620	Figure 3.9, Figure 3.10 and 3.11 are only from South Africa (SA)! Very important to describe status where changes are in the positive	They are used as an examples not to represent the entire Southern Africa sub-region.
249	Ignela Sahondra Randriantsizafy (ISR)	54	1527	54	1530	Figure 3.9: 'The average fraction of the 'natural populations of plant and vertebrate groups estimated to remain in the major biomes of South Africa (SA)' [source: Van Jaarsveld et al. 2005]. -1 - It is not a figure but a table. - 2 - It would be more appropriate to rewrite the table, instead of making "copy-paste"	Changed to table and table rewritten
250	Elise Belle (EB)	54	1529	54	1529	Figure not cited in the text, and should be labelled as a table.	Figure is now cited
251	André Mader (AM)	54	1520	54	1520	Is Zambia really the only Southern African country with tropical or subtropical dry or humid forest in southern Africa? For example the southern Cape area and KZN Province in South Africa (SA) have pockets of subtropical forest. Are these too small to consider?	Kwazulu Natal (South Africa (SA)) is added to trends
252	South Africa (SA)	54	1514	62	1808	Section 3.4.5 Sub-regional assessment of Southern Africa. This section has many incomplete sub-sections and gaps and does not draw on many readily available sources of South Africa (SA), such as reports and spatial	Section 3.4.5 has been reworked and modified where necessary

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						analyses for South Africa (SA)'s National Biodiversity Assessment 2011.	
253	Marie-Lucie Susini (MLS)	54	1514	62	1804	whole section 3.4.5. Southern Africa very good, well documented- bravo!	Noted
254	Elise Belle (EB)	55	1562	56	1563	"the escarpment, the most data poor area being Angola, and the best studied being the east"	Text corrected
255	Rael Loon (RL)	55	1561			Could be worth including examples of endemic and range restricted fauna here (after mention of the endemic plants). These could include mammals, such as the oribia, reptiles such as the Cream-spotted Mountain Snake Montaspis gilvomaculata, Cottrell's Mountain Lizard Tropidosaura cottrelli and Essex's Mountain Lizard T.essexi; amphibians such as the Maluti River Frog Amieta umbraculataand Phofung River Frog A.vertebralis.Lesotho's Sehlabathebe National Park also harbors the Maloti minnow (Pseudobarbus quathlambae), a critically endangered fish species only found in this park. Range restricted birds include the Drakensburg Rock-jumper, Drakensburg Siskin as well as a breeding stronghold for Cape and Bearded Vulture.	Done
256	Rael Loon (RL)	55	1562			Delete 'the most' (repetition)	Repetition deleted
257	Ignela Sahondra Randriantsizafy (ISR)	55	1532	55	1533	Figure 3.10: "Biodiversity status in the three major Gariep biomes" [source: Van Jaarsveld et al. 2005]. -1 - It is not a figure but a table. - 2 - It would be more appropriate to rewrite the table, instead of making "copy-paste"	Table is being rewritten by the graphic designer.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
258	Elise Belle (EB)	55	1533	55	1533	Figure not cited in the text, and should be labelled as a table and top title cropped/deleted.	Figure is now cited
259	Harald Pauli (HP)	55	1545	55	1545	Mountain forest and grassland'	Text corrected
260	Marie-Lucie Susini (MLS)	55	1562	55	1562	the most is written twice	Repetition deleted
261	André Mader (AM)	55	1545		1600	This section does not seem to correspond with its title - it is much broader in scope than the title.	Text has been modified to meet the scope of the heading
262	Elise Belle (EB)	56	1566	56	1566	"including the Ai-Ais/Richtersveld"	Text corrected
263	Rael Loon (RL)	56	1604	57	1631	As above, it could be interesting to specify the various vegetation types under threat within the respective bioregions and biomes. For example the Savannah Biome is made up of 6 Bioregions and 87 vegetation types (Mucina and Rutherford)	Unfortunately the example given here is restricted to South Africa (SA) (Mucina and Rutherford). This work is for southern Africa
264	Edson Gandiwa (EG)	56	1580	56	1580	Relook at the referencing of Taylor et al	
265	Michael Olusegun Ogundele (MOO)	56	1566	56	1566	Repitition of "Ai-Ais". One should be removed	Repetition deleted
266	Rael Loon (RL)	56	1604			Savannah and Grasslands are different biomes and should be treated separately?	This is the unit of analysis provided by IPBES secretariat. We would over to change this but we can't
267	Rael Loon (RL)	56	1572			The Maloti-Drakensberg Park is a transboundary site composed of the	Suggested text added

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						uKhahlamba Drakensberg National Park in South Africa (SA) and the Sehlathebe National Park in Lesotho	
268	Rael Loon (RL)	56	1604	57	1631	Threatened vegetation types within Savannah include Tzaneen Sour Bushveld and Lebombo Summit Sourveld (Mucina and Rutherford 2006. The vegetation of South Africa (SA), Lesotho and Swaziland. Strelitzia19. South Africa (SA)n National Biodiversity Institute)	Olivia reference not yet found
269	Rael Loon (RL)	56	1604	57	1631	Threatened vegetation types within the Grassland Biome include the Northern Escarpment and the Woodbush Granite Grassland (Mucina and Rutherford 2006)	Suggested text added
270	Rael Loon (RL)	57	1628			Could add: "However with the concerted efforts from conservationists and intensive protection measures by stakeholders, it is hoped that this trend is being abated." (ref WWF African Rhino Programme)	Suggested text added
271	Rael Loon (RL)	57	1623			"..and is decreasing.." (delete relatively)	Text corrected
272	Elise Belle (EB)	57	1614	57	1614	"Kruger National Park in South Africa (SA)"	Suggested text added
273	Ignela Sahondra Randriantsizafy (ISR)	57	1619	57	1621	Figure 3.11: "Water availability and use in Southern Africa, as compiled in the SAfMA regional scale study [source: Jaarsveld et al. 2005]. -1 - It is not a figure but a table. - 2 - It would be more appropriate to rewrite the table, instead of making "copy-paste"	Table has been deleted
274	Rael Loon (RL)	57	1617			Provides 'important benefits via/from ecotourism' (delete 'such as')	Text corrected

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
275	South Africa (SA)	57	1608	57	1608	Rather say "and/or" wildlife, as many land users now have mixed herd animals.	Text corrected
276	Rael Loon (RL)	58	1647			"...of which 20 are endemic..." add "such as the Namibian Wolf Snake Lycophidion namibianum"	Suggested text added
277	Elise Belle (EB)	58	1634	58	1634	"terrestrial unit is diverse and represented by various ecosystems such as the"	Text corrected
278	Rael Loon (RL)	58	1661			Correct name 'African Wild Dog'	Text corrected
279	Rael Loon (RL)	58	1645			Could add: "For these reasons, the Succulent Karoo qualifies as a global biodiversity hotspot (Critical Ecosystem Partnership Fund)"	Suggested text added
280	Rael Loon (RL)	58	1647		1648	Could also include the endemic amphibian: Damaraland Pygmy Toad Poyntonophrynus damaranus	Text corrected
281	Chantal Cahu (CC)	58	1664	58	1664	phrase pas claire	Text corrected
282	André Mader (AM)	58	1639	58	1639	The Cape Province no longer exists. It was divided into the Northern Cape, Western Cape and Eastern Cape	Text corrected
283	Rael Loon (RL)	58	1650		1651	To add "However two new developments are positive signs for the future of the Succulent Karoo's future. These include the creation of the Namaqua National Park which is set to expand westwards to encompass Sandveld habitats on the coastal plain. Hence the reserve system is expanding in that region. Also, public awareness of the value of the region is growing through the 'Succulent Karoo Ecosystem Programme (SKEP)' which among other actions	Suggested text added

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						is leading to increased efforts of landowners in the region to adopt biodiversity-friendly landuse patterns.	
284	Elise Belle (EB)	59	1672	59	1673	"Luanda also fell within [...] does predict the Gautend"	Text corrected
285	Elizabeth Milne (EM)	59	1711	60	1724	I am assuming that the authors chose to only refer to perennial water bodies in this report due to their direct significance to humans? However, what about the ephemeral wetlands? Although assumed to be dry most of the time, these wetlands play a huge role as stepping-stone corridors in an arid landscape for special birds like flamingos when wet. They also act as genetic repositories for Branchiopod species which are not found in the "normal" wetlands. These systems are important to farmers in the arid regions as it holds water longer than the surrounding matrix. The entire Northern Cape is scattered with ephemeral wetlands that are erroneously assumed to be wastelands due to lack of understanding and dearth of research.	This section is about wetlands in general although particular wetlands are referred to.
286	André Mader (AM)	59	1697	61	1779	Mangroves are discussed under both wetlands and shelf ecosystems	All mangroves are moved to a single section
287	Elise Belle (EB)	60	1720	60	1720	"particular having very few"	Text corrected
288	André Mader (AM)	60	1734	60	1739	Should PAs be discussed here? A more consistent treatment of Pas throughout the text would be helpful.	This is being looked into for the whole chapter
289	Elise Belle (EB)	61	1760	61	1760	"results in increased"	Text corrected
290	Elise Belle (EB)	62	1808		1808	Missing section.	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
291	Elise Belle (EB)	63	1828	63	1828	"strategy to 2020"	corrected
292	Marie-Lucie Susini (MLS)	63	1812	63	1814	authors should explain more the content of fig 3.12	Explanation provided
293	Marie-Lucie Susini (MLS)	63	1828	63	1828	Strategy in the caption	corrected
294	Rael Loon (RL)	63	1838		1864	Text needs formating - line spacing on margin & below figure 2	Will be corrected
295	Rael Loon (RL)	63	1828			typo 'strategy'	corrected
296	Marie-Lucie Susini (MLS)	64	1896	64	1896	and includes, should be replaced by :	Incomplete comment (but corrected)
297	André Mader (AM)	64	1896	64	1896	Biomes do not match the classification used elsewhere in the document.	Sentence has been expanded to include missing units of analysis
298	Michael Olusegun Ogundele (MOO)	64	1870	64	1828	Correct spelling "strategy"	corrected
299	Rael Loon (RL)	64	1894			Fig 3.13?	It is a table. But since it does have iconic features, it is referred to as a figure.
300	Elise Belle (EB)	64	1894		1894	Figure title separated from table, and should be labelled as a table.	done
301	Rael Loon (RL)	64	1896			Include: Fynbos Biome; Succulent Karoo Biome; Nama-Karoo Biome; Albany Thicket Biome (Mucine and Rutherford 2006)	We include broad biomes in Africa. These biomes are South Africa (SA)n specific
302	Marie-Lucie Susini (MLS)	64	1902	64	1902	scare should be scarce	corrected
303	Michael Olusegun	64	1870	64	1873	Why are these lines 1870- 1873 empty? Is line 1894 refering to figure 2 on page 63. If so, please adjust figure placement on the page.	Formatting problem

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
	Ogundele (MOO)						
304	Elise Belle (EB)	65	1912	65	1913	"the sale of medicinal plants (Sheckleton et al., 2007). Decline in these ecosystems, as reported in the different regions, has"	corrected
305	Edson Gandiwa (EG)	65		65		Fig. 3.14 as above comment but also add caption	This figure is deleted
306	Ignela Sahondra Randriantsizafy (ISR)	65	1930	65	1930	Figure 3.14: From Egoh et al., (2009). -1 - It is not a figure but a table. - 2 - Please, rewrite yhe title of the table. -3 - It would be more appropriate to rewrite the table, instead of making "copy-paste"	done
307	Marie-Lucie Susini (MLS)	65	1930	65	1930	no reference to Figure 3.14 in the text Caption is missing...	this figure is omitted from the chapter
308	Marie-Lucie Susini (MLS)	65	1918	65	1919	please provide examples of mentioned ES	Example included
309	André Mader (AM)	65	1920	66	1939	This section might be better suited to chapter 1; and might also need more Africa-specific context	We agree. Text is therefore shared with Chapter 1
310	Marie-Lucie Susini (MLS)	66	1931	66	1931	Figure 3.15 is hard to read and difficult to understand	Relooked
311	Ignela Sahondra Randriantsizafy (ISR)	66	1932	66	1939	Figure 3.15: "Linkages between broad groups of biodiversity attributes, ESPs and ecosystem services for the 11 ecosystem services included in the literature review. Species level attributes include species richness, diversity, abundance, size and weight; functional group level attributes include functional diversity and functional richness; community or habitat level	This figure has been delete based on other comments from reviewers.

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						attributes include community/habitat area, age, structure and successional stage; behavioural traits include flower visiting behaviour and biocontrol; and biomass attributes include above and belowground biomass and litter or crop residue. The thickness of the connecting lines reflects the number of papers providing evidence for that linkage equally divided into three categories with the thickest lines representing the most frequently cited linkages" (Harrison et al., 2014). - 1 - Reduce and specify the title of the figure. - 2 - Put the explanations in a paragraph.	
312	Elise Belle (EB)	66	1932	66	1932	Figure not cited in text and should have a title.	Figure deleted
313	Marie-Lucie Susini (MLS)	66	1932	68	1951	several figures without text... is it normal?	Table removed
314	Edson Gandiwa (EG)	67		67		Fig. 3.16, relook at only leave one caption	done
315	Ignela Sahondra Randriantsizafy (ISR)	67	1942	67	1943	Figure 3.16: Opportunities for improving nature's contribution to people in the African continent. - 1 - Why title of figure 3.16 differs from the original title (Fig. 12.5 Percentage area of hotspots and ranges of five Ess en protected areas in South Africa (SA).) ?	Fixed
316	Elise Belle (EB)	67	1943	67	1943	Figure not cited in text, could be deleted.	Deleted
317	Ignela Sahondra Randriantsizafy (ISR)	67	1940	67	1941	Table: Trends in ecosystem services based on different aspects of biodiversity in Africa. - 1 - Where are values ? - 2 - When the table hold on several pages, make the header line visible for each page, in order to facilitate reading	Table removed

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
318	Elise Belle (EB)	68	1946	68	1946	Figure not cited in text, could be deleted.	Deleted
319	CSIR BES	68	1929	68	1929	See section on gaps in knowledge?	added gaps in NCP to the gap section
320	Tim Hirsch (TH)	68	1951	68	1952	The section on data gaps is currently blank. GBIF would be very pleased to provide detailed analysis of species occurrence data availability based on e.g. Geographic, taxonomic and temporal dimensions that would assist in describing data coverage in Africa. A baseline report currently in press produced for the Biodiversity Information for Development (BID) programme includes significant metrics relating to data mobilization in sub-Saharan Africa, and these could be made available for the assessment team.	Section is filled with gaps on links between biodiversity and ES
321	Marie-Lucie Susini (MLS)	69	1953	69	1953	It would be nice to have the section '3.7. Conclusions and recommendations' ready for reviewing soon...	This section will be filled subsequently
322	Rael Loon (RL)	69	1954			To address?	comment not clear
323	CSIR BES	85	2581	86	2583	Table ?? On page 85 Better graph from IUCN, more recent	No table on page 85
324	CSIR BES	86	2583	86	2588	Fig 3.3 is for chapter 2	Deleted
325	Nadia Sitas (NS)	General	General	General	General	Although Ch4-6 might touch on these issues more, according to the chapter outline Ch3 will reflect on how changes in nature impact NCP and the Aichi targets esp Aichi targets 11-14 - this was mentioned but not explored in any level of detail.	Like the reviewer has pointed, such issues are dealt with in depth in chapter 2, 4-6

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
326	Nadia Sitas (NS)	General	General	General	General	General comment: The authors should have a look at the IPBES Core Indicators for more information on regional variation in BII (pg 277), Species protection index pg 291 & 292 for regional variation and 293-297 for some country changes, protected areas etc.	"Figure 3.1: Biodiversity Intactness Index" added
327	Edson Gandiwa (EG)	General	General	General	General	General, the chapter has a number of sections with some gaps which needs attention	Noted and addressed
328	CSIR BES	General	General	General	General	General: I expected to see some more information on specific ecosystem services like N or P regulation as these link to issues related to food security, tipping points etc and can be used to assess how systems have been transformed- see IPBES core indicator guide pg 342-353 for images and links to data sources	Regulatory ecosystem services are well elaborated in chapter 2
329	CSIR BES	General	General	General	General	General: Resources such as GBIF, GEOBON, should be mined to see whether they can provide some information to close some of the existing gaps- even if at a regional/national level- e.g. SANBI has a programme on marine BD that could provide information for a case study https://www.sanbi.org/biodiversity-science/state-biodiversity/biodiversity-monitoring-assessment/sanbi-marine-programme . Some mangrove information and references can be found here: https://wrmbulletin.wordpress.com/2008/08/25/current-status-and-conservation-of-mangroves-in-africa-an-overview/ with some governance options here:	The suggested data mines have been used in closing some of the existing gaps

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						http://www.saiia.org.za/policy-briefings/governing-africas-mangroves-a-sustainable-future and here: http://www.saiia.org.za/opinion-analysis/reconciling-growth-and-development-with-ecological-integrity-along-africas-coastline	
330	CSIR BES	General	General	General	General	General: there needs to be a thorough language edit as some of the sentences are not grammatically correct or logical	Professional editors to review document
331	CSIR BES	General	General	General	General	General: there needs to be a thorough language edit as some of the sentences are not grammatically correct or logical	Professional editors to review document
332	Nadia Sitas (NS)	General	General	General	General	I wondered whether authors could incorporate any information on biocultural diversity e.g. linguist diversity e.g. Loh & Harmon 2005; 2014 http://www.sciencedirect.com/science/article/pii/S1470160X0500018X , http://wwf.panda.org/wwf_news/press_releases/?222890/Biocultural-Diversity-Threatened-3062-Species-Endangered-Languages , this might also help with incorporating diverse values into the assessment	suggested literature used and cited
333	André Mader (AM)	General	General	General	General	In most cases "shelf ecosystems" covers only mangroves and not other ecosystems within the category.	Neritic and intertidal/littoral zone are not included as part of shelf ecosystems
334	André Mader (AM)	General	General	General	General	In several cases figures are not introduced in the text. For ease of reading they should be well contextualised, and should support the text.	All sections reviewed to address this

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
335	André Mader (AM)	General	General	General	General	Information on protected areas is not incorporated consistently or uniformly. If this could be discussed in the same way in each sub-section, it would be more accessible.	Protected areas are being addressed under one section in 3.3.2
336	André Mader (AM)	General	General	General	General	Is the marine area assessed limited to the EEZ, throughout the chapter?	No. The reason being, the EEZ do not converge with the classification of sub-regions used in this report.
337	André Mader (AM)	General	General	General	General	Mangroves are treated sometimes under wetlands and sometimes under shelf ecosystems - need for consistency.	Mangroves are now treated as wetlands.
338	André Mader (AM)	General	General	General	General	Sections on urban areas are lacking in biodiversity/ecosystem relevance, and detail.	This is addressed in section 3.3
339	André Mader (AM)	General	General	General	General	The differences between "units of analysis", "ecosystem type" and "biome" may need to be explained in the context of this assessment. If that is done in another chapter, there can be a cross-reference to that chapter.	Cross reference to be provided (Chapter 1)
340	André Mader (AM)	General	General	General	General	The discussions on status & trends are variable in the way they discuss species or ecosystems/biomes, or mix these discussions. Sometimes they speak about only ecosystems; sometimes only species; sometimes a mix. Greater consistency would make reading easier.	Consistency have been checked throughout the report
341	André Mader (AM)	General	General	General	General	The distinction between open ocean and deep sea is unclear, and may be inconsistent. If the former refers to pelagic environments and the latter to benthic ones, this is not clearly reflected in the content of these sections.	Information included in chapter 1

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
342	André Mader (AM)	General	General	General	General	The future dynamics sections are generally very short of information and justification. Perhaps these could cross-reference more proactively to any relevant chapter 5 sections?	Future dynamics of biodiversity depends heavily on the dynamics of drivers - information well-captured in chapter 4
343	André Mader (AM)	General	General	General	General	The treatment of biomes per subregion appears inconsistent: Sometimes there are sections on status, trends and future dynamics; other times one or more of those categories are left out or combined.	Consistence enhanced
344	André Mader (AM)	General	General	General	General	There is no section on Mediterranean ecosystems in the section on Southern Africa	Information on Mediterranean ecosystems added
345	Neil Burgess (NB)	p.49	1304			IUCN produced a report on the status of mammals in West Africa in 2016 that should be used as the primary data source here	suggested literature used and cited
346	Neil Burgess (NB)	p14		p16		There is repetition of biodiversity and protected area information (and quite a lot of mistakes) - this needs to be straightened out and agreed with the help of IUCN and UNEP-WCMC	The repetition omitted.
347	Neil Burgess (NB)	p4	142			I would also mention amphibians and mountain endemic plants isolated on small mountains as being highly climate vulnerable. There is literature on this - for example https://scholar.google.co.uk/citations?view_op=view_citation&hl=en&user=E5yu_GYAAAAJ&citation_for_view=E5yu_GYAAAAJ:WF5omc3nYN0C	suggested literature used and cited
348	Neil Burgess (NB)	Section 3.4				Details of each ecoregion in Africa are found in Burgess et al. 2004 - the link is provided above	Ecoregions are being used

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
349	Neil Burgess (NB)	Section 3.4				Throughout this section there are many aspects that could be tightened. Both in terms of the biodiversity data and other aspects. As it stands I would be tempted to go back to the various ecoregion descriptions and then update new information from there on. At present its a bit of a collection of things from different time periods and is not very coherent as a result	the section reworded and text modified where necessary
350	Neil Burgess (NB)	Section 3.5				Quite general. Would have been good to have seen each of the main African Biomes broken down systematically (using tables) in terms of the different services it provides and how the known trends in that biome are affecting these services. There is one overall table, but I think this needs to be done biome by biome to make sense	Map on considered Ecosystem Units of Analysis included in chapter 1
351	Neil Burgess (NB)	Section 3.6				Missing	incorporated
352	Neil Burgess (NB)	Section 3.7				Missing	incorporated
353	Elise Belle (EB)		1479		1479	"(GCLME)"	changes made as suggested
354	Elise Belle (EB)		1323		1328	", with an increase in the number of cities in the 1-5 million ranges evident between 1990 and 2014. Lagos is now considered to be a megacity. It is projected that by 2030, it will remain a megacity, while [...] expansions are expected along the coasts, in particular along the Gulf of Guinea [...] forests of West Africa are likely to be significantly impacted by urban expansion."	urban section is being rewritten and placed in section 3.3

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
355	Elise Belle (EB)		521		521	"<100, with almost all individuals found in one"	Niger is not North Africa: deleted
356	Rael Loon (RL)		96		97	"...at the current rates may also cause extinction of elephants..." this statement does not take into account the continental variation of elephant populations where populations are still viable. Could therefore read "...at the current rates may cause the extinction of elephants in some areas"	Deleted "...at the current rates may also cause extinction of elephants..." .
357	Elise Belle (EB)		1506		1506	"1983 and 2014, from 829"	changes made as suggested
358	Elise Belle (EB)		603		603	"1992) and perhaps"	Done
359	Elise Belle (EB)		1103		1103	"above, especially habitat loss"	done
360	Elise Belle (EB)		1906		1907	"Africa and are found in all regions of the continent. Like the forest biome, both the"	Text corrected
361	Elise Belle (EB)		829		829	"Africa saw an increase in 1-5 million sized cities between 1970 and 2014."	considered and modified
362	Elise Belle (EB)		220		220	"Africa was also"	Text has been corrected
363	Elise Belle (EB)		1583		1583	"Afrotemperate forests"	Text corrected
364	Elise Belle (EB)		1360		1361	"almost forgotten. For instance, the Niger Delta [...] different scales. Except in"	considered and modified
365	Elise Belle (EB)		1921		1921	"also occurs at multiple scales"	Text corrected
366	Elise Belle (EB)		99		99	"Amazonia and includes"	Text has been corrected
367	Elise Belle (EB)		1181		1181	"and demersal fish"	done
368	Elise Belle (EB)		1909		1909	"and important grazing activities"	Text corrected
369	Elise Belle (EB)		1463		1463	"and is a major carbon sink"	changes made as suggested
370	Elise Belle (EB)		1697		1697	"and Limpopo Rivers along"	Text corrected
371	Elise Belle (EB)		865		865	"and little evaporation"	reviewed and addressed
372	Elise Belle (EB)		1440		1440	"and salt collection constitute"	changes made as suggested

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
373	Elise Belle (EB)		1458		1458	"and sometimes mismanagement. For instance, the construction of the"	changes made as suggested
374	Elise Belle (EB)		932		932	"and their ecology"	considered and modified
375	Elise Belle (EB)		1779		1779	"are all protected"	Text corrected
376	Elise Belle (EB)		1304		1304	"are mainly constituted by Sahelian populations found in Niger"	
377	Elise Belle (EB)		973		973	"as a natural World Heritage site"	Corrected
378	Elise Belle (EB)		1820		1821	"as important across the world"	Text corrected
379	Elise Belle (EB)		1163		1163	"assessed, in terms of carbon sequestration, as well as in terms of"	done
380	Elise Belle (EB)		1384		1386	"Assessments, the designation [...] as protected areas, and filling the information gap (large number of Data Deficient species in the Red List)."	changes made as suggested
381	Elise Belle (EB)		948		948	"at 4700-5100 depth"	considered and modified
382	Elise Belle (EB)		1500		1501	"becoming smaller. [...] is projected to decline by 21%, with an annual"	changes made as suggested
383	Elise Belle (EB)		1462		1462	"Benin and Guinean coast"	changes made as suggested
384	Elise Belle (EB)		690		690	"bodies, both in the short term and long term,"	Done
385	Elise Belle (EB)		1051		1052	"By 2030, we also expect"	done
386	Elise Belle (EB)		1349		1349	"by the two dams built"	considered and modified
387	Elise Belle (EB)		750		751	"Central Africa contain around [...], 30% of which are endemic, while"	considered and modified
388	Elise Belle (EB)		747		747	"classified as natural World Heritage sites"	considered and modified
389	Elise Belle (EB)		1867		1868	"complex and not yet fully understood"	Text corrected
390	Elise Belle (EB)		165		166	"conflicts, encroachment from local populations , and inadequate"	changes made as suggested
391	Elise Belle (EB)		1450		1450	"conservation and restoration efforts"	changes made as suggested
392	Elise Belle (EB)		705		705	"destroyed by the Diamas"	Done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
393	Elise Belle (EB)		1761		1762	"Eastern Cape, mangroves are located"	Text corrected
394	Elise Belle (EB)		1373		1373	"endemic species. High endemism is due to"	changes made as suggested
395	Elise Belle (EB)		1579		1580	"Escarpment, but as yet no clear trends in precipitatin are emerging (Taylor et al., in press).	In text citation, corrected
396	Elise Belle (EB)		1157		1157	"except a few, such as the ones included in the Mananara"	done
397	Elise Belle (EB)		1669		1670	"exception being Joannesburg and the wider Gauteng province in South Africa (SA)."	Text corrected
398	Elise Belle (EB)		466		466	"fauna it contains, especially threatened and endemic species, need urgent research and protection.'	Done" and implementation of legislation for protection"
399	Elise Belle (EB)		1996		1897	"five broad biomes: forest, savannah [...] with their degradation"	Comment not understood
400	Elise Belle (EB)		841		841	"forest, covering approximately"	reviewed and addressed
401	Elise Belle (EB)		1203		1203	"forests support about"	considered and modified
402	Elise Belle (EB)		1903		1903	"forests to human livelihoods"	Text corrected
403	Elise Belle (EB)		487		487	"forests, including biodiversity and ecosystem services (Medial"	Done
404	Elise Belle (EB)		1750		1750	"Four other marine mammals occuring". Which ones?	Suggested text added and mammals named
405	Elise Belle (EB)		1380		1380	"Furthermore, 38% of the regionally endemic species [...], 155 species in total, are globally"	changes made as suggested
406	Elise Belle (EB)		111		112	"future threats expected due to changing"	changes made as suggested
407	Elise Belle (EB)		111		112	"future threats expected due to changing"	Suggested text has been added
408	Elise Belle (EB)		1923		1923	"gaps in governance will threaten"	Text corrected
409	Elise Belle (EB)		765		765	"have been lost from 2002"	considered and modified
410	Elise Belle (EB)		1155		1155	"have caused a lot of tensions"	done
411	Elise Belle (EB)		1174		1174	"high in East Africa, with"	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
412	Elise Belle (EB)		1461		1461	"highly dependent on oyster harvesting from the mangroves for their"	changes made as suggested
413	Elise Belle (EB)		214		214	"history of the African continent." Delete end of sentence.	End of sentence has been deleted
414	Elise Belle (EB)		1347		1347	"home to over 3 million wintering shorebirds, at least"	considered and modified
415	Elise Belle (EB)		1076		1076	"However, mangroves are"	done
416	Elise Belle (EB)		686		686	"However, there has been"	Done
417	Elise Belle (EB)		1441		1441	"However, these ecosystems are threatened by drought, rural exodus"	changes made as suggested
418	Elise Belle (EB)		1270		1270	"However, today the faunal"	considered and modified
419	Elise Belle (EB)		232		233	"human impacts, changing institutions, habitat fragmentation"	Text has been corrected
420	Elise Belle (EB)		258		259	"humid forests, mountains,"	Text has been corrected
421	Elise Belle (EB)		573		573	"hyper-arid areas in Morocco"	Done
422	Elise Belle (EB)		270		271	"IBPES to complement scientific"	Text has been corrected
423	Elise Belle (EB)		1864		1866	"important for the provision of ecosystem [...] services, with degradation of such areas resulting in negative impacts on multiple"	Text corrected
424	Elise Belle (EB)		606		606	"In Egypt, dry and sub-humid habitats cover over 90% of the territory,"	Done
425	Elise Belle (EB)		699		699	"In Mauritania, only a few"	Done
426	Elise Belle (EB)		1708		1708	"in Mozambique, NGOs are"	Text corrected
427	Elise Belle (EB)		721		712	"In Sudan, mangroves, dominated by [...] along the coast from"	Done
428	Elise Belle (EB)		601		601	"in the 1970's. Dorcas"	Done
429	Elise Belle (EB)		571		571	"in this biogeographical unit include Algeria"	Done
430	Elise Belle (EB)		1549		1549	"including water catchments"	Text corrected
431	Elise Belle (EB)		830		830	"increase in 1-5"	reviewed and addressed

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
432	Elise Belle (EB)		1835		1836	"individual species that play a central role"	Text corrected
433	Elise Belle (EB)		1734		1736	"is the creation of protected areas. However, [...] protected areas [...] designed to protect freshwater species. The design of protected areas"	Text corrected
434	Elise Belle (EB)		1074		1074	"islands of the Indian Ocean"	done
435	Elise Belle (EB)		1309		1309	"It is now in the south-Saharan [...] and in the south-Saharan"	considered and modified
436	Elise Belle (EB)		243		243	"ITPGR), and at the species"	Text has been corrected
437	Elise Belle (EB)		1130		1130	"Kilifi area in Kenya"	done
438	Elise Belle (EB)		816		816	"larger antelopes"	considered and modified
439	Elise Belle (EB)		241		241	"levels, that is"	Text has been corrected
440	Elise Belle (EB)		1819		1819	"links have been explored"	Text corrected
441	Elise Belle (EB)		961		961	"located in countries with"	Corrected
442	Elise Belle (EB)		952		952	"margin, there has been new"	considered and modified
443	Elise Belle (EB)		927		927	"more NGOs work on carbon"	considered and modified
444	Elise Belle (EB)		1027		1028	"most of these zones are recognized as important zones for endemism, but have been difficult to fully survey due to political instability and conflicts."	done
445	Elise Belle (EB)		716		716	"mugilid species). Most of"	Done
446	Elise Belle (EB)		867		867	"networks of rivers,"	reviewed and addressed
447	Elise Belle (EB)		173		173	"New governance types of protected"	Suggested text has been added
448	Elise Belle (EB)		1466		1466	"Niger Delta."	changes made as suggested
449	Elise Belle (EB)		542		542	"number of other invertebrates"	Done
450	Elise Belle (EB)		550		550	"number of threatened species"	Done
451	Elise Belle (EB)		1552		1552	"of climate change."	Text corrected
452	Elise Belle (EB)		1192		1192	"of particular conservation interest"	done
453	Elise Belle (EB)		602		602	"of the Nile. Oryx was never documented"	Done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
454	Elise Belle (EB)		1108		1108	"of these water bodies, biodiversity information should be integrated with environmental"	done
455	Elise Belle (EB)		1307		1307	"Oryx is extinct in the wild and has been reintroduced"	considered and modified
456	Chantal Cahu (CC)			6	198	"Over 120 plant species are extinc", depuis quand?	comment not clear
457	Elise Belle (EB)		131		131	"per year on average"	Suggested text has been added
458	Elise Belle (EB)		1002		1003	"plant species, with about 1000 species"	Suggested text has been added
459	Elise Belle (EB)		340		341	"played an important ecological"	changes made as suggested
460	Elise Belle (EB)		1474		1475	"policies take the importance of mangroves into account, conservation"	changes made as suggested
461	Elise Belle (EB)		1730		1732	"pollution and deforestation, but also to the fact that many areas [...]very little rain and are subject [...] species also threaten the local"	Text corrected
462	Elise Belle (EB)		627		630	"proportion of the populations of most countries living in urban areas. Seto et al. (2012) forecast an urban expansion through 2030, especially along the coasts and the Nile River."	Done
463	Elise Belle (EB)		615		616	"protectorate includes 251 plant [...] of extinction) and 324 animal"	Done
464	Elise Belle (EB)		1350		1350	"recovering, thanks to a restoration program"	considered and modified
465	Elise Belle (EB)		1822		1822	"relationships are mostly positive"	Text corrected
466	Elise Belle (EB)		1168		1169	"Rufiji Delta and to environmental violence. The Warufiji have not been farming"	done
467	Elise Belle (EB)		1166		1166	"Rufiji Delta in Tanzania contains [...] Africa, and is"	done
468	Elise Belle (EB)		1032		1033	"savage, as well as three"	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
469	Elise Belle (EB)		1830		1831	"services such as timber"	Text corrected
470	Elise Belle (EB)		1052		1053	"Seto et al. (2012) als project the rise of urban growth hotspots in greater"	done
471	Elise Belle (EB)		1415		1415	"Shelt ecosystems are"	Replaced with "coastal ecosystems"
472	Elise Belle (EB)		1493		1494	"Small pelagic species constitute almost"	changes made as suggested
473	Elise Belle (EB)		1473		1473	"smuggling of oil and the political insecurities are also heavily"	changes made as suggested
474	Elise Belle (EB)		1086		1086	"Some large lakes in East Africa"	done
475	Elise Belle (EB)		1916		1916	"southern regions of Africa"	Text corrected
476	Elise Belle (EB)		1838		1838	"species and ecological functions"	Text corrected
477	Elise Belle (EB)		620		620	"species are threatened"	Done
478	Elise Belle (EB)		607		607	"species of antelopes"	Done
479	Elise Belle (EB)		1647		1647	"species, of which 20 are endemic, and the popular"	Text corrected
480	Elise Belle (EB)		682		682	"subject to variations in"	Done
481	Elise Belle (EB)		1008		1008	"sub-region's human population"	done
482	Elise Belle (EB)		164		164	"such as climate change,"	colon has been removed
483	Elise Belle (EB)		651		651	"Sudan boasts a"	Changed spelling
484	Elise Belle (EB)		1482		1482	"surface (mainly from July to September each year) contributes"	changes made as suggested
485	Elise Belle (EB)		260		260	"systems, and aquaculture-" (delete 'linear coastal systems', already said)	Text has been corrected
486	Elise Belle (EB)		595		596	"temporary presence of the"	Done
487	Elise Belle (EB)		1623		1623	"terrestrial unit is under threat and decreasing in size due to"	Text corrected
488	Elise Belle (EB)		1046		1046	"terrestrial unit remains"	done
489	Elise Belle (EB)		1483		1483	"that causes a high biological"	changes made as suggested

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
490	Elise Belle (EB)		1661		1661	"The African wild dog or painted dog is the most severely"	Text corrected
491	Elise Belle (EB)		1291		1291	"The average Sahelian rainfall"	considered and modified
492	Elise Belle (EB)		520		520	"The Critically"	Done
493	Elise Belle (EB)		1095		1096	"The extent of freshwater ecosystems is"	done
494	Elise Belle (EB)		797		797	"The Garamba National Park in DRC houses the last"	considered and modified
495	Elise Belle (EB)		1114		1115	"the largest coverage in shelf ecosystems in the region"	done
496	Elise Belle (EB)		1146		1146	"the mangrove forests".	done
497	Elise Belle (EB)		614		614	"The Northeast African cheetah is currently"	Done
498	Elise Belle (EB)		1118		1118	"The only endemic"	done
499	Elise Belle (EB)		820		820	"The original habitats are also being ingreasingly converted to agriculture"	considered and modified
500	Elise Belle (EB)		597		597	"The Scimitar-horned Oryx is probably now extinct in Sudan (Wilspon, 1980)"	Done
501	Elise Belle (EB)		878		878	"There are various types [...] ecosystem, including loss"	considered and modified
502	Elise Belle (EB)		690		691	"There is a need to raise awareness on the usefulness of these"	Done
503	Elise Belle (EB)		459		459	"They hold several types of" (more than 5 cited).	Done
504	Elise Belle (EB)		803		803	"This terrestrial biogeographical unit is"	considered and modified
505	Elise Belle (EB)		104		104	"threat, with an estimated 10% decline expected"	Text has been corrected
506	Elise Belle (EB)		1692		1692	"threatened, including 54% Critically Endangered"	Text corrected
507	Elise Belle (EB)		671		671	"to the impacts of climate"	Done

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508	Elise Belle (EB)		1143		1143	"Toliara in Madagascar". Explain in which way it 'could change in the future'.	no need
509	Elise Belle (EB)		1746		1746	"two coastal natural World Heritage sites in South Africa (SA): iSimangaliso Wetland Park and Cape Floral Region Protected Areas." There are only two coastal sites listed on the WH List for South Africa (SA): http://whc.unesco.org/en/statesparties/za .	Suggested text added and reference added
510	Elise Belle (EB)		1069		1069	"wetlands should be reconciled"	done
511	Elise Belle (EB)		1342		1342	"wetlands, as exemplified by Lake Chad"	considered and modified
512	Elise Belle (EB)		252		252	"What are the future dynamics"	Text has been corrected
513	Elise Belle (EB)		618		618	"with extinction). In the Wadi Allaqi PA,"	Done
514	Elise Belle (EB)		342		342	"world is likely to have important"	changes made as suggested
515	Susan Ringrose (SR)		519			A case in point is the Air-Tenere Nature Park which is in Niger (ie sub-Saharan Africa) which has been included here as North Africa. Need to define your regions at the beginning of Ch 3 and stick to the definitions - even though some of the published papers may have varying interpretations. What is required here is a measure of clarity in order to get your message across.	West Africa
516	Elise Belle (EB)		256		256	Add World Heritage sites	Text has been corrected
517	Susan Ringrose (SR)		302			Africa is not a region	Not changed because within IPBES assessments it is a region
518	Susan Ringrose (SR)		538			Again where are these 'Savannas and grasslands'?? Where is Siwa PA??	Add paragraph "Savannah and grasslands in North Africa are located in arid and Saharan areas (Savannah) and in High

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							Mountain areas (grasslands)."; "(Northwest Egypt, near Libya border) "
519	Elise Belle (EB)		1313		1316	Again, this needs to be updated using the current data in the Red List for 2017: http://www.iucnredlist.org/ ,	Updated to 2017 reference
520	Elise Belle (EB)		97		98	By when? Reference?	By 2080. Global Change Processes and impacts in Africa by Otter et al., 2007
521	Susan Ringrose (SR)		220			Callaway is just a reporter. There are many other sources dealing with the origin of humankind in Africa - Leakey's work (though now dated) would likely provide the best overview	Noted. Relevant sources of information consulted
522	Susan Ringrose (SR)		2594			Change South Africa (SA) to Southern Africa	Figure will be redone by graphic designer and changed
523	Elise Belle (EB)		452		452	Clarify in which countries these protected areas are found.	Done
524	Elise Belle (EB)		873		874	Clarify the number of Important Bird Areas in the central Africa region. Or delete this sentence.	sentence deleted
525	Elise Belle (EB)		1223		1224	Complete sentence/section: 'Add trends in plant diversity from IUCN'	considered and modified
526	Diane Douglas					Comprehensive review of issues by region	Noted
527	Elise Belle (EB)		1138		1139	Could delete as repetition of previous section.	done
528	Elise Belle (EB)		1593		1593	Delete '(Olivia)' and add reference.	Olivia deleted. Reference not found
529	Elise Belle (EB)		1146		1148	Delete '(shrimp ponds [...]) not been a available'.	done

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530	Elise Belle (EB)		1123		1123	Delete ', and the dangers of the wetlands' or clarify.	done
531	Elise Belle (EB)		717		718	Delete 'and we can assume [...] on the trends)', as if there is no data, it cannot be assumed.	Done
532	Elise Belle (EB)		1287		1288	Delete 'Cote d'Ivoire [...] arid zones'. "[...] and Senegal also have some"	considered and modified
533	Elise Belle (EB)		573		574	Delete 'During the decade [...] (FAO, 2001)': old reference.	Done
534	Elise Belle (EB)		219		219	Delete 'fauna' (as add 'and flora').	Fauna was deleted
535	Elise Belle (EB)		1159		1159	Delete incomplete sentence: 'Protection and [...] PES.'	done
536	Elise Belle (EB)		1702		1702	Delete last sentence, not relevant here: 'Mangroves have [...] Brown, 2014)'.	Text corrected
537	Elise Belle (EB)		1770		1773	Delete 'Mangrove areas are [...] of the estuaries' as repetition from above.	Text corrected
538	Elise Belle (EB)		421		421	Delete old reference (UNEP, 2008).	Deleted
539	Elise Belle (EB)		1777		1777	Delete or expand on 'Future depends on climate change and policies.' "Mozambique, the Foundation for [...] BIOFUND is promoting"	Text corrected
540	Elise Belle (EB)		1769		1769	Delete reference to Table 3.5, not relevant here.	Text corrected
541	Elise Belle (EB)		1455		1455	Delete reference to Table 3.6	changes made as suggested
542	Elise Belle (EB)		1427		1428	Delete sentence as it is a repetition from above.	changes made as suggested
543	Elise Belle (EB)		375		376	Delete 'The national park [...] scenic beauty.'	Deleted
544	Susan Ringrose (SR)		89			Direct connection between biodiversity loss and poverty increase needs to be proven not just assumed	replaced "reduced their resilience and increased poverty" with "negative

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							impacts nature's contribution to people"
545	Elise Belle (EB)		1290		1290	During which decade?	
546	Susan Ringrose (SR)		323		Table 3.2	Either use landscape mode or repeat column headings	Noted
547	Susan Ringrose (SR)		329		Table 3.3	Either use landscape mode or repeat column headings	Table deleted
548	Susan Ringrose (SR)		441 onwards			Entire sub-regional analysis would come to life (rather than just be ponderous lists) with the use of maps which would also help in the thereto undefined regions and sub-regions which are scattered throughout the text	Such a map is incorporated in chapter 1 of the assessment report
549	Elise Belle (EB)		1790		1791	Examples of ecosystem goods and services?	Have already been described in section 3.5
550	Elise Belle (EB)		1814		1814	Explain briefly why the EU strategy is also relevant for Africa.	A sentence has been added to explain this. Title of figure is also changed not to be EU specific
551	Elise Belle (EB)		1930		1930	Figure not cited in text, should be labelled as a table and should have a title.	Figure is deleted
552	Elise Belle (EB)		1620		1620	Figure not cited in the text, and should be labelled as a table.	Figure is deleted
553	Elise Belle (EB)		117		117	Freshwater fish? Reference?	Freshwater biodiversity. Reference: https://www.iucn.org/content/african-freshwater-species-threatened-livelihoods-stake
554	Susan Ringrose (SR)					General Ch 3: Interesting as far as it goes. Lots of omissions and incompleteness of data so	Existing gaps have been filled and data updated.

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						entire story is yet to be told. Maps and tables not integrated properly into text therefore largely unhelpful. Too heavy in detail but only in selected areas. INCOMPLETE - ESPECIALLY WITH RESPECT TO SOUTHERN AFRICAN ECOSYSTEMS AND SERVICES AND OMISSIONS FROM LITERATURE ON THESE.	
555	Elise Belle (EB)		443		443	How have the biogeographical regions been chosen? What about savannahs, grasslands, steppes and meadows?	units of analysis based on IPBES recommendations; see chapter 1
556	Elise Belle (EB)		883		884	I assume you are talking about Data Deficient species on the IUCN Red List. I am not convinced there are many more for Central Africa. Reference?	considered and modified
557	Neil Burgess (NB)		798			I believe that Ceratotherium simum cottoni is extinct in Garamba	verified and deleted
558	Susan Ringrose (SR)		1211 and 1227		Figure s 3.7 and 3.8	If these figures are important they need to be referred to in the text	Figures are now cited in text
559	Susan Ringrose (SR)		829			Importantly need to suggest trends in city/mega city development - especially as these large populations are the biggest eco-system service users and to a large extent, the most problematic	reviewed and completed (Omoakin,2012)
560	Susan Ringrose (SR)		1726			Importantly the Okavango Delta - and its huge impact on local ecosystem services, should be included here - see Ramberg et al., 2006	Suggested text added
561	Elise Belle (EB)		543		543	In which country is this protected area (not in the WDPA)?	Done

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562	Susan Ringrose (SR)					Include section on Data Gaps and Conclusions	The conclusion has been updated
563	Susan Ringrose (SR)		380			Include the incipient KAZA - Kavango-Zambezi Transfrontier conservation area here	KAZA included
564	Elise Belle (EB)		810		810	Incomplete paragraph	Paragraph completed
565	Elise Belle (EB)		1272		1273	Incomplete paragraph	Gaps are being addressed
566	Elise Belle (EB)		824		825	Incomplete section	Section completed
567	Elise Belle (EB)		723		723	Inconsistent use of upper case in table. Check wording on 3rd line, 4th column. Replace 'rural flight' by 'rural exodus'. Is 'harvesting mushrooms' really a threat? "Increasing human pressure leading to resource degradation" "drinking water for cattle" "Losses of some ecosystem services" (instead of 'satisfaction functions') Delete 'extension, urbanization, climate change' from 5th column as these are threats and not ecosystem services. Expand on the impacts (poverty, diseases, rural exodus) in the last 3 lines	Done
568	Elise Belle (EB)		1279		1283	Is this referring to the global Red List or national Red Lists? The reference, from 1996 is too old. This needs to be updated using the current data in the Red List for 2017: http://www.iucnredlist.org/ , and the wording checked.	Table updated
569	Susan Ringrose (SR)		221			It's axiomatic to state that early peoples lived close to nature - they had no choice. Change to 'Africa is the earliest location...	Text has been corrected

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570	Elise Belle (EB)		361		361	Missing figure.	Figure added
571	Elise Belle (EB)		732		732	Missing section.	Section added
572	Elise Belle (EB)		997		997	Missing section.	Section inserted
573	Elise Belle (EB)		1058		1058	Missing section.	Section inserted
574	Elise Belle (EB)		1332		1332	Missing section.	Gaps are being addressed
575	Elise Belle (EB)		1681		1681	Missing section.	done
576	Elise Belle (EB)		1952		1952	Missing section.	Added gaps in NCP
577	Elise Belle (EB)		1954		1954	Missing section.	To be written
578	Elise Belle (EB)		348		349	Missing table.	Such a map is incorporated in chapter 1 of the assessment report
579	Elise Belle (EB)		426		427	Missing text. You could consider adding a box on ICCAs and the ICCA Registry: http://www.iccaregistry.org/ .	Missing text added
580	Elise Belle (EB)		546		548	Most of these species have actually not been assessed on the IUCN Red List. 'Endangered' according to who? Reference?	Reference not found
581	Elise Belle (EB)		1411		1411	Move first sentence after 'commercial species' line 1401.	changes made as suggested
582	Elise Belle (EB)		408		409	Move 'with alterned rainfall patterns and temperature regimes' after 'climate changes'.	changes made as suggested
583	Elise Belle (EB)		1369		1369	No italics in 'river' and 'West Africa'	changes made as suggested
584	Elise Belle (EB)		148		148	Not always managed by local people.	Noted
585	Elise Belle (EB)		148		148	Not always managed by local people.	We added "usually"
586	Susan Ringrose (SR)		343			Not clear what these important contributions are??	Nature's contributions to people
587	Elise Belle (EB)		1008		1010	Old data from 2000. Update as follows: "In Africa, the extent of protected area coverage ranges from 0.21% in Lybia to 42.1% in the	done

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						Seychelles (and 76.4 in the Reunion Island) for terrestrial areas (UNEP-WCMC and IUCN 2017)". Also add to reference list as: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net .	
588	Elise Belle (EB)		418		419	Old data. 'In total, Africa contains 8338 protected areas, including 374 marine protected areas, 44 natural World Heritage sites, 72 Biosphere Reserves, and 381 Ramsar sites (UNEP-WCMC and IUCN, 2017)' Also add to reference list as: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net .	Data updated.
589	Elise Belle (EB)		210		212	Old data. Replace with: "Africa now contains 8338 protected areas, including 374 marine protected areas, 44 natural World Heritage sites, 72 Biosphere Reserves, and 381 Ramsar sites (UNEP-WCMC and IUCN, 2017)". Add to reference list as: UNEP-WCMC and IUCN (2017). Protected Planet. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net .	New data has been inserted with new references.
590	Elise Belle (EB)		205		205	Over which time period?	From 1990 to 2015. Reference: http://www.fao.org/3/a-i4793e.pdf
591	Neil Burgess (NB)					Overall this is quite a weak chapter. There is quite a lot that could be done to improve the chapter in my view - using existing compiled	A lot of information from WCMC has been incorporated

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						material and some further synthesis of available material	
592	Susan Ringrose (SR)		1661			Painted dog is the African Wild Dog	Text corrected
593	Elise Belle (EB)		1707		1708	Please expand on 'Future depends on climate change and policies.'	Text deleted
594	Susan Ringrose (SR)		722		Table 3.5	Quote source and explain why yet again different sub-divisions are invoked	Done
595	Elise Belle (EB)		424		424	Reference?	DeFries et al., 2005
596	Elise Belle (EB)		1041		1042	Reference?	done
597	Elise Belle (EB)		1104		1104	Reference?	already there
598	Elise Belle (EB)		1148		1150	Reference?	done
599	Elise Belle (EB)		1189		1189	Reference?	cf Adelina related to deep sea
600	Elise Belle (EB)		1276		1276	Reference?	www.fao.org/docrep/T0115E/T0115E0c.htm
601	Elise Belle (EB)		1355		1355	Reference?	https://doi.org/10.1080/21513732.2011.634436
602	Elise Belle (EB)		1379		1379	Reference?	https://portals.iucn.org/library/sites/library/files/documents/RL-66-001.pdf
603	Elise Belle (EB)		1397		1397	Reference?	https://portals.iucn.org/library/sites/library/files/documents/RL-66-001.pdf
604	Elise Belle (EB)		1406		1407	Reference?	Tang et al., (2014)
605	Dan Faith (DF)					References • Arrieta, Jesús M., Sophie Arnaud-Haondb, and Carlos M. Duartea (2010) What lies underneath: Conserving the oceans' genetic resources. PNAS	Relevant references consulted as suggested

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						<p>www.pnas.org/cgi/doi/10.1073/pnas.0911897107</p> <ul style="list-style-type: none"> • 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 • Brooks TM, Akçakaya HR, Burgess ND, Butchart SHM, Hilton-Taylor C, Hoffmann M, Juffe-Bignoli D, Kingston N, MacSharry B, Parr M, Perianin L, Regan EC, Rodrigues ASL, Rondinini C, Shennan-Farpon Y, Young BE (2016) Analysing biodiversity and conservation knowledge products to support regional environmental assessments. Scientific Data 3: 160007. http://dx.doi.org/10.1038/sdata.2016.7 • Brooks TM, Akçakaya HR, Burgess ND, Butchart SHM, Hilton-Taylor C, Hoffmann M, Juffe-Bignoli D, Kingston N, MacSharry B, Parr M, Perianin L, Regan EC, Rodrigues ASL, Rondinini C, Shennan-Farpon Y, Young BE (2016) Data from: Analysing biodiversity and conservation knowledge products to support regional environmental assessments. Dryad Digital Repository. http://dx.doi.org/10.5061/dryad.6gb90.2 • Bruford, Michael W., Neil Davies, Mohammad Ehsan Dulloo, Daniel P. Faith, Michele Walters 	

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						<p>(2017) Monitoring Changes in Genetic Diversity. In: The GEO Handbook on Biodiversity Observation Networks. pp 107-128. available at: http://link.springer.com/chapter/10.1007/978-3-319-27288-7_5/fulltext.html</p> <ul style="list-style-type: none"> • Cadotte MW and JT Davies (2010) Rarest of the rare: advances in combining evolutionary distinctiveness and scarcity to inform conservation at biogeographical scales. Diversity and Distributions, 16, 376–385 • Chassagnon, Irène R., Claudia A. McCarthy^{b,c}, Yanni K.-Y. China, Sandy S. Pineda^a, Angelo Keramidas^d, Mehdi Moblie, Vi Phamb^c, T. Michael De Silva^{b,c}, Joseph W. Lynch^d, Robert E. Widdop^{b,c}, Lachlan D. Rasha^{f,1}, and Glenn F. Kinga, (2017) Potent neuroprotection after stroke afforded by a double-knot spider-venom peptide that inhibits acid-sensing ion channel 1a 1114 no. 14 3750–3755, doi: 10.1073/pnas.1614728114 • Daru, B.H., Bank, M. & Davies, T.J. (2015) Spatial incongruence among hotspots and complementary areas of tree diversity in southern Africa. Diversity and Distributions, 21(7), 447 769-780. • Daru, B.H., Yessoufou, K., Mankga, L.T. & Davies, T.J. (2013) A global trend towards the loss of evolutionarily unique species in mangrove ecosystems. PLoS ONE, 8, e66686. 	

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						<ul style="list-style-type: none"> • EDGE of Existence https://www.edgeofexistence.org/ ZSL, London. • Faith, D. P. (1992). Conservation evaluation and phylogenetic diversity. <i>Biological Conservation</i>, 61, 1–10. • Faith DP, Ferrier, S., Williams, KJ (2008) Getting biodiversity intactness indices right: ensuring that "biodiversity" reflects "diversity" <i>Global Change Biology</i> 14, 207-217. • Faith, D. P. (2011). Higher-Level Targets for Ecosystem Services and Biodiversity Should Focus on Regional Capacity for Effective Trade-Offs. <i>Diversity</i> 2011, 3, 1-7; doi:10.3390/d3010001 • Faith Daniel P. (2014) Ecosystem services can promote conservation over conversion and protect local biodiversity, but these local win-wins can be a regional disaster. <i>Australian Zoologist Online</i> pp1-10. DOI 10.7882/AZ.2014.031 available at: http://catalog.ipbes.net/system/assessment/141/references/files/710/original/Faith_Australian_Zoologist_2014.pdf?1422606347 • Faith DP (2017) A general model for biodiversity and its value. in <i>The Routledge Handbook of Philosophy of Biodiversity</i> (Eds. J Garson, A Plutynski, S Sarkar) https://www.routledge.com/products/9781138827738 	

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						<ul style="list-style-type: none"> • Faith, D.P., Magallón, S., Hendry, A.P., Conti, E., Yahara, T., Donoghue, M.J., 2010. Ecosystem services: an evolutionary perspective on the links between biodiversity and human well-being. <i>Current Opinion in Environmental Sustainability</i> 2, 66–74. • Forest, F., Grenyer, R., Rouget, M., Davies, T.J., Cowling, R.M., Faith, D.P., Balmford, A., Manning, J.C., Proches, S., van derBank, M., Reeves, G., Hedderson, T.A. & Savolainen, V. (2007) Preserving the evolutionary potential of floras in biodiversity hotspots. <i>Nature</i>, 445, 757–760. • Francis (2015) Encyclical Letter <i>Laudato Si'</i> of the Holy Father Francis: On Care for Our Common Home [English language version]. The Vatican. • Gascon C., Thomas M. Brooks, Topiltzin Contreras-MacBeath, Nicolas Heard, William Konstant, John Lamoreux, Frederic Launay, Michael Maunder, Russell A. Mittermeier, Sanjay Molur, Razan Khalifa Al Mubarak, Michael J. Parr, Anders G.J. Rhodin, Anthony B. Rylands, Pritpal Soorae, James G. Sanderson, Jean-Christophe Vié (2015) “The Importance and Benefits of Species,” <i>Current Biology</i>. 25: R431–R438. • González-Orozco, Carlos E. Laura J. Pollock, Andrew H. Thornhill, Brent D. Mishler, Nunzio Knerr, Shawn W. Laffan, Joseph T. Miller, Dan F. 	

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						<p>Rosauer, Daniel P. Faith, David A. Nipperess, Heini Kujala, Simon Linke, Nathalie Butt, Carsten Külheim, Michael D. Crisp & Bernd Gruber (2016) Phylogenetic approaches reveal biodiversity threats under climate change. Nature Climate Change 6, 1110-1114.</p> <ul style="list-style-type: none"> • Haskins, C. (1974) "Scientists Talk of the Need for Conservation and an Ethic of Biotic Diversity to Slow Species Extinction", Science, 184: 646-47. • Isaac, N.J.B., Turvey, S.T., Collen, B., Waterman, C., Baillie, J.E.M., 2007. Mammals on the EDGE: conservation priorities based on threat and phylogeny. PloS One 2, e296. • Jetz, W., G. H. Thomas, J. B. Joy, D. W. Redding, K. Hartmann, and A. Ø. Mooers. 2014. Global distribution and conservation of evolutionary distinctness in birds. Curr. Biol. 24:919–930. • Laity, Tania, Shawn W. Laffan, Carlos E. González-Orozco, Daniel P. Faith, Dan F. Rosauer, Margaret Byrne, Joseph T. Miller, Darren Crayn, Craig Costion, Craig C. Moritz, Karl Newport (2015) Phylodiversity to inform conservation policy: An Australian example. Science of The Total Environment, Volume 534, 15 November, Pages 131-143 • Larsen, F.W., W.R. Turner, T.M. Brooks, et al. (2012). Conserving critical sites for biodiversity provides disproportionate benefits to people. 	

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						<p>PLoS One 7: e36971.</p> <ul style="list-style-type: none"> • Maclaurin J, Sterelny K (2008) What is biodiversity? University of Chicago Press. • Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Biodiversity Synthesis. World Resources Institute, Washington, DC. • Millennium Ecosystem Assessment, 2005. Chapter 4: Biodiversity. World Resources Institute, Washington, DC. • Mouillot, D., Parravicini, V., Bellwood, D. R., Leprieur, F., Huang, D., Cowman, P. F., Albouy, C., Hughes, T. P., Thuiller, W., & Guilhaumon, F. (2016). Global marine protected areas do not secure the evolutionary history of tropical corals and fishes. Nature Communication,7, 10359. • Mukherjee, Supratim, Rekha Seshadri, Neha J Varghese, Emiley A Eloie-Fadrosch, Jan P Meier-Kolthoff, Markus Göker, R Cameron Coates, Michalis Hadjithomas, Georgios A Pavlopoulos, David Paez-Espino, Yasuo Yoshikuni, Axel Visel, William B Whitman, George M Garrity, Jonathan A Eisen, Philip Hugenholtz, Amrita Pati, Natalia N Ivanova, Tanja Woyke, Hans-Peter Klenk & Nikos C Kyrpides (2017) 1,003 reference genomes of bacterial and archaeal isolates expand coverage of the tree of life Nature Biotechnology • Nehring, K., and C. Puppe (2004). Modelling 	

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						<p>phylogenetic diversity. Resource and Energy Economics 26(2): 205–235.</p> <ul style="list-style-type: none"> • Peel E. , Y. Cheng, J. T. Djordjevic, S. Fox, T. C. Sorrell & K. Belov (2016) Cathelicidins in the Tasmanian devil (<i>Sarcophilus harrisii</i>) Scientific Reports 6, Article number: 35019. doi:10.1038/srep35019 • Pollock, Laura J. Wilfried Thuiller¹ & Walter Jetz (2017) Large conservation gains possible for global biodiversity facets. Nature • Roush, G. (1977) “Why save diversity?” Nature Conservancy News 21: 9-12. • Safi K, Armour-Marshall K, Baillie JEM, Isaac NJB (2013) Global Patterns of Evolutionary Distinct and Globally Endangered Amphibians and Mammals. PLOS ONE 8(5): e63582. • Slowinski Joseph B. and Brian I. Crother (1998) Is the PTP Test Useful? Cladistics 14, 297]302 • Sonnenburg^{1,*}, Erica D., Samuel A. Smits^{1,*}, Mikhail Tikhonov², Steven K. Higginbottom¹, Ned S. Wingreen³, and Justin L. Sonnenburg¹ Diet-induced extinction in the gut microbiota compounds over generations Nature. 2016 January 14; 529(7585): 212–215 • Thuiller, Wilfried Sébastien Lavergne, Cristina Roquet, Isabelle Boulangeat, Bruno Lafourcade & Miguel. B. Araujo (24 February 2011) Consequences of climate change on the tree of life in Europe Nature 470, 531–534 	

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						<p>doi:10.1038/nature09705</p> <ul style="list-style-type: none"> • Tonini, J. F. R., K. H. Beard, R. B. Ferreira, W. Jetz, and R. A. Pyron. 2016. Fully-sampled phylogenies of squamates reveal evolutionary patterns in threat status. <i>Biol. Conserv.</i> 204:23–31. • Veron et al. (2016) Loss and conservation of evolutionary history in the Mediterranean Basin. <i>BMC Ecol</i> 16:43 • WILKINSON, MARK, PEDRO R. PERES-NETO, PETER G. FOSTER, AND CLIVE B. MONCRIEFF (2002) Type 1 Error Rates of the Parsimony Permutation Tail Probability Test <i>Syst. Biol.</i> 51(3):524–527. • Zhang Jian, Scott E. Nielsen, Youhua Chen, Damien Georges, Yuchu Qin, Si-Shuo Wang, Jens-Christian Svenning and Wilfried Thuiller (2016) Extinction risk of North American seed plants elevated by climate and land-use change. <i>Journal of Applied Ecology</i> 2016. • Yessoufou, Kowiyou, Barnabas H. Daru^{2,3} Respinah Tafirei¹ Hosam O. Elansary⁴ Isaac Ramped¹ (2017) Integrating biogeography, threat and evolutionary data to explore extinction crisis in the taxonomic group of cycads <i>Ecology and Evolution</i>. 2017;7:2735–2746. • Yessoufou K. ², G.H. Stoffberg (2016) Biogeography, threats and phylogenetic structure of mangrove forest globally and in 	

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
						South Africa (SA): A review. South Africa (SA)n Journal of Botany 107 114–120.	
606	Elise Belle (EB)		831		833	Reformulate sentence.	considered and rephrased
607	Elise Belle (EB)		524		524	Repetition: delete 'serious threat'. What is the evidence of that? What is the reference?	Done
608	Elise Belle (EB)		90		90	Resilience to what?	Resilience to ecosystem distractions
609	Elise Belle (EB)		1787		1789	Revise sentence 'The East Coast [...] (AEO, 2005)'.	Done
610	Elise Belle (EB)		634		634	Section missing.	Section on Status and trends of biodiversity in cultivated lands developed
611	Elise Belle (EB)		1535		1535	Section missing.	Paragraph has been added on trends.
612	Elise Belle (EB)		1540		1540	Section missing.	done
613	Susan Ringrose (SR)		386			So far this map has no meaning or relevance	We do agree with the reviewer hence why we deleted the map
614	Elise Belle (EB)		1749		1749	Species name in italics	Text corrected
615	Elise Belle (EB)		1754		1755	Species names in italics. Where is Table 2?	Species names resolved.
616	Elise Belle (EB)		247		247	Spell out DOPA acronym.	Text has been corrected
617	Elise Belle (EB)		1207		1207	Such as? Examples of primate species?	Examples to be provided
618	Elise Belle (EB)		1940		1940	Table has no title and is not cited in the text. It is also empty and needs to be completed (or deleted).	Table has been deleted
619	Elise Belle (EB)		323		323	Table not referenced in text.	Table is now cited in text.
620	Susan Ringrose (SR)		855 and 901		Tables 3.6 and 3.7	Tables need a source and context within the text	Table deleted

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
621	Dan Faith (DF)		197		202	the good treatment of threatened species here would be complemented well by linking to NCP18	This comment was found to be relevant to chapter 2
622	Thomas Brooks (TB)					The IPBES definition of "biodiversity" includes "ecosystems" (see e.g. http://www.ipbes.net/sites/default/files/downloads/IPBES_2_INF_2_Add.1.pdf ; also Africa assessment Chapter 1, Page 5, Lines 142-145). 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 6 (Line 193).	CLAs to interact with TSU and secretariat to address this, noting that ecosystem is part of biodiversity according to CBD
623	Susan Ringrose (SR)		633			There are a number of references on Google - in general much more effective use could be made of the internet.	Gaps filled
624	Susan Ringrose (SR)		1606			There are numerous sources and considerable information on the Miombo, Mopane, Zambesian and Kalahari woodlands each of which require separate and detailed treatment in your text.	Sources are not provided it is hard to respond to this comment.
625	Susan Ringrose (SR)		296		Table 3.1	These are not all TAXA	Corrected

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
626	Susan Ringrose (SR)		389		414	This is a direct repeat from the Introduction - where a summary would be preferred	Introduction is reworked
627	Susan Ringrose (SR)		1620		Figure 3.11	This is a table and is not relevant here	Figure is deleted
628	Dan Faith (DF)		265		266	this need not restrict to function/ecosystem services or iconic cultural - it could consider NCP18	This comment was found to be relevant to chapter 2
629	Elise Belle (EB)		551		567	This section refers to very old references of the IUCN Red List (1996, 2000, 2004, and 2008). It all needs to be updated using the current data in the Red List for 2017: http://www.iucnredlist.org/ .	Done
630	Elise Belle (EB)		368		371	This statement is very misleading, as it does not refer to the total number of species found within protected areas but only to species which are exclusively found in these protected areas. This sentence should be deleted or rephrased to make this much clearer.	Statement rephrased
631	Dan Faith (DF)		312		314	this will be useful - IUCN threat status for the African region, and discussion of threat status - and will be enhanced by the pie diagrams on imperilled PD	Figure 3.4 is added to show such information
632	Susan Ringrose (SR)		779			Too many gaps in text	All gaps in text filled
633	Elise Belle (EB)		501		501	Update reference in brackets.	Done
634	Elise Belle (EB)		526		526	Update reference in brackets.	Done
635	Elise Belle (EB)		1356		1360	Use of the ',' and ';'. 	considered and modified
636	Susan Ringrose (SR)		241 onwards			Use present tense throughout this section	Present tense used

Comment #	Reviewer Name	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	How to Address
637	Elise Belle (EB)		991		991	What about the trend in Ethiopia, Kenya and Uganda? Could you add something about that?	considered and modified
638	Rael Loon (RL)		210		212	What classification are the majority of the 3044 protected areas?	Based on IUCN classification
639	Elise Belle (EB)		1431		1431	What do you mean by 'best-developed'?	term is commonly used in various literature
640	Elise Belle (EB)		970		971	What does this range mean? Also old reference. "However, most of these forests"	Corrected
641	Elise Belle (EB)		678		678	What is the conclusion of this study?	Done
642	Elise Belle (EB)		1444		1445	Where and over which time period?	In West Africa
643	Elise Belle (EB)		1707		1707	Where and when? Reference?	In South Africa (SA)
644	Elise Belle (EB)		983		983	Where is Figure 3?	deleted
645	Elise Belle (EB)		1433		1433	Which country?	Niger
646	Elise Belle (EB)		1040		1040	Which ecoregions for example?	no need
647	Elise Belle (EB)		626		626	Which one is the additional city?	Done
648	Elise Belle (EB)		1411		1413	Why are these numbers different from the ones given just above? Please clarify.	Numbers corrected