

**IPBES template for the submission of requests, inputs and suggestions on short-term priorities and longer term strategic needs that require attention and action by IPBES as part of its future work programme.**

Name and contact details of individual submitting requests/inputs/suggestions:

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Submission from: **IUCN Vulture Specialist Group (VSG)**

Other Stakeholder(s): NGOs, public administrations, expert panels and scientists researching on scavenger ecology and conservation (see a detailed list below).

Please provide the following information for any request and, where relevant, for any inputs and suggestions (additional attachments can also be submitted):

**Request/input/suggestion:** Creation of a thematic expert panel on scavengers and scavenging within IPBES.

**Information to accompany requests submitted to the Platform (see also Decision IPBES-1/3 Procedure for receiving and prioritizing requests put to the Platform):**

**1. Relevance to the objective, functions and work programme of IPBES:**

The presence of human-mediated carrion (e.g. from farming, fisheries, hunting) is increasing worldwide ([Oro et al. 2013 Ecol. Lett. 16, 1501-1514](#)) and it is expected to widely affect biodiversity conservation (e.g. between 2 and 11 % of terrestrial vertebrates present in an ecosystem scavenge, including 19 % of threatened species; see point 2 below) and thus human well-being and sustainable development. According to the main IPBES objective (i.e. to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development; [IPBES Guide on the production of assessments 2018](#)), there is an urgent need for strengthening the science-policy interface for developing sustainable policies not only directly intended for the conservation of scavenger's diversity but also sectorial policies affecting livestock, game, fisheries and many other sectors with an impact on scavengers and scavenging (see some examples in point 2 below). This requires a conservation-focused multidisciplinary approach able to catalyse the generation of knowledge useful for supporting policymakers at global, regional and sub-regional scales, as well as to create capacity building for identifying management priorities and the scientific work they need to be effective. We think therefore that the future work programme of IPBES should establish a permanent thematic expert panel on scavengers and scavenging in charge of coordinating all these tasks ([Mateo-Tomás & Olea 2018 Nature 558, 519](#)).

2.	<p><b>Urgency of action by IPBES in the light of the imminence of the risks caused by the issues to be addressed by such action:</b></p> <p>Between 2 and 11 % of terrestrial vertebrates present in an ecosystem scavenge, including 19 % of threatened species such as vultures, eagles, bears and lions (<a href="#">Mateo-Tomás et al. 2015 Divers. Distrib. 21, 913-924</a>). Furthermore, vultures, as the only obligate scavengers, are suffering an unprecedented conservation crisis, with nine species (out of 22 total) critically endangered, three endangered and four near threatened according to the IUCN Red List (<a href="#">Buechley &amp; Şekercioğlu 2016 Biol. Conserv. 198, 220-228</a>). Similar or even larger numbers of scavenging species are expected for invertebrates (e.g. between 54 and 522 taxa reported at vertebrate carcasses; <a href="#">Tabor et al. 2004 J. Med. Entomol. 41, 785-795</a>), with limited knowledge on the impact that changes in carrion availability and/or quality can exert on such species and the related ecosystem functions and services. Sharp declining rates of scavengers like vultures (up to -44 % annually; <a href="#">Green et al. 2004 J. Appl. Ecol. 41, 793-800</a>; <a href="#">Ogada et al. 2016 Conserv. Lett. 9, 89-97</a>) and apex predators (<a href="#">Ripple et al. 2014 Science 334, 1241484</a>) worldwide compromise key ecosystem functions and services supported by scavenging, e.g. nutrient recycling, disease control, waste disposal, climate change minimization and cultural values (<a href="#">O’Bryan et al. 2018 Nature Ecol. Evol. 2, 229-236</a>), which in turn contribute to public health and food security. For instance, crashing vulture populations poisoned with the veterinary drug diclofenac in India undoubtedly led to increases in feral dog numbers and associated human health risks including dog bites and human rabies incidence (~48,000 deaths) and healthcare costs (~\$34 billion; <a href="#">Markandaya et al. 2008 Ecol. Econ. 67, 194-204</a>), whereas hungry vultures attacking livestock after the outbreak of the Bovine Spongiform Encephalopathy (BSE or “mad cow disease”) in Europe caused an unprecedented social alarm in countries like Spain or France, with, for example, damage compensations of more than €265,000 in Spain (<a href="#">Margalida et al. 2011 Nature 480, 457</a>). The recent reform of the Common Fisheries Policy (CFP) regulating fisheries discards (i.e. fish catch which is thrown back, often dead, into the sea) is expected to affect marine scavengers and their ecosystems (Bicknell et al. 2013). Furthermore, elephant and rhino carcasses poisoned by poachers are decimating African vultures and apex predators (<a href="#">Ogada et al. Conserv. Lett. 9, 89-97; 2016</a>).</p>
3.	<p><b>Relevance of the requested action in addressing specific policies or processes:</b></p> <p>The increasing presence of anthropogenic food wasted from farming, hunting or fisheries, to name a few, affects biodiversity conservation and ecosystem functioning worldwide (<a href="#">Oro et al. 2013 Ecol. Lett. 16, 1501-1514</a>), demanding better science-policy integration. Uninformed sectorial policies managing human-mediated carrion jeopardise scavenger conservation and human well-being in all continents (see some examples in point 2 above). Furthermore, scientific knowledge on the topic is still limited (e.g. invertebrate scavenger communities are mostly ignored in carrion ecology and conservation, carrion consumption rates are unknown for most scavenging species, biodiversity-ecosystem functions and -ecosystem services relationships are understudied; <a href="#">Mateo-Tomás et al. 2017 Global Ecol. Biogeogr. 26, 1459-1470</a>). Moreover, the knowledge available, is not properly integrated into sectorial policies (<a href="#">Mateo-Tomás et al. 2018 Science 360(6389), 612-613</a>) or directly ignored (e.g. regarding the use of diclofenac in livestock carcasses in Europe or of lead ammunition for big game hunting worldwide; <a href="#">Margalida et al. 2014 Conserv Biol 28(3), 631-632</a>; <a href="#">Garbett et al. 2018 Sci Total Environ 630, 1654-1665</a>).</p>

<p><b>4.</b></p>	<p><b>Geographic scope of the requested action, as well as issues to be covered by such action:</b></p> <p>The geographic scope of the requested action is global. Obligate vertebrate scavengers (i.e. vultures and condors) are present in all continents but Australia and Antarctica; nonetheless, scavengers (facultative and obligate) are present in all ecosystems, from deserts to mountain tops, in terrestrial, freshwater and marine realms of all the continents (e.g. <a href="#">Dunlop et al. 2014 Polar Biol. 37, 1741-1754</a>; <a href="#">Mateo-Tomás et al. 2015 Divers. Distrib. 21, 913-924</a>; <a href="#">Olea, Mateo-Tomás &amp; Sánchez-Zapata. Carrion ecology and management. Wildlife Research Monographs. Springer. In press</a>). These species and their ecological functions are therefore affected by sectorial policies managed in farming, hunting or fisheries worldwide; but also for transport and energy planning since road kills, collisions and electrocutions are also human-mediated carrion sources (<a href="#">Trombulak &amp; Frissell 2000 Conserv. Biol. 14, 18-30</a>; <a href="#">D'Amico et al 2018 Ambio 1-7</a>). Although special attention should be paid to particularly threatened species such as vultures (see point 2 above), information is lacking on the situation of many other scavenging taxa, especially invertebrates, as well as on how to implement effective conservation actions for scavenger conservation. The main issue to be covered by the expert panel is the delivery of global and regional assessments on the situation of the topic. Some work is already available, e.g. regarding the situation of vultures in Africa and Europe (e.g. The Multi-species Action Plan to Conserve African- Eurasian Vultures (Vulture MsAP), to conserve African-Eurasian vultures under the Convention on the Conservation of Migratory Species of Wild Animals (CMS); <a href="#">Botha et al. 2017</a>) that can help to guide the process.</p>
<p><b>5.</b></p>	<p><b>Anticipated level of complexity of the issues to be addressed by the requested action:</b></p> <p>Although the conservation issues to be addressed regarding scavengers and scavenging are complex (i.e. due to the wide range of species, ecosystems and sectors that imply) the creation of an IPBES thematic expert panel on the topic should be more feasible taking into account the existence of similar IPBES panels and of scientific, management and conservation groups dealing with some scavenger species worldwide, e.g. the Vulture Specialist Group of the IUCN, Saving Asia's Vultures from Extinction (SAVE), the Spanish Working Group for Feeding Scavengers, with ample experience in coordinating governments, scientists and conservation experts to develop assessments for scavenger conservation (e.g. The Multi-species Action Plan to Conserve African- Eurasian Vultures (Vulture MsAP), to conserve African-Eurasian vultures under the Convention on the Conservation of Migratory Species of Wild Animals (CMS); <a href="#">Botha et al. 2017</a>).</p>
<p><b>6.</b></p>	<p><b>Previous work and existing initiatives of a similar nature and evidence of remaining gaps, such as the absence or limited availability of information and tools to address the issues, and reasons why IPBES is best suited to take action:</b></p> <p>As previously stated, regarding scavenging and scavengers, most initiatives up to date focus on vultures (as the only obligate scavengers), one of the most relevant being The Multi-species Action Plan to Conserve African- Eurasian Vultures (Vulture MsAP), to conserve African-Eurasian vultures under the Convention on the Conservation of Migratory Species of Wild Animals (CMS) (<a href="#">Botha et al. 2017</a>).</p>

	<p>Among the remaining gaps there is, for example, limited knowledge on most scavenging species and, therefore, on the impact on them (and the associated ecosystem functions and services) of changes in the availability and/or quality of carrion, and especially of human-mediated carrion increasingly present in ecosystems. Major knowledge gaps remain regarding key ecosystem functions of scavengers such as the role they play in disease ecology (<a href="#">Bellan et al. 2013 Appl. Environ. Microbiol. 79(12), 3756–3761</a>). Regarding the conservation of concrete scavenger groups, e.g. vultures, a major gap recently highlighted is that of understanding and awareness of human-wildlife conflicts and associated impacts on vultures to inform more effective mitigation approaches (<a href="#">Botha et al. 2017 Vulture MsAP</a>). There is also a lack of information on how to implement effective conservation actions, e.g. integrating scientific evidence in sectorial policies, or enhance transboundary coordination (<a href="#">Mateo-Tomás et al. 2018 Science 360(6389), 612-613</a>). Major knowledge gaps exists also considering the ecology of scavengers, e.g. scavenging rates, inter- and intraspecific interactions..., that can compromise the effectiveness of conservation actions.</p> <p>IPBES will allow the development of a permanent body to coordinate policy and science on the topic while broadening the scope of existing conservation initiatives. This applies not only to taxa other than vultures but also to experts from other disciplines related to ecology and conservation such as public health, farming, hunting, fisheries and other sectors that are connected to the generation of human-mediated carrion and thus threats to scavenger biodiversity (e.g. energy, transport...). It is noteworthy that scientific evidence already exists that should be efficiently implemented by managing authorities. This is a clear capacity-building objective for which we consider IPBES as the best suited panel.</p>
7.	<p><b>Availability of scientific literature and expertise for IPBES to undertake the requested action:</b></p> <p>Scientific literature on scavengers and scavenging is increasingly available worldwide. There has been a sharp increase in the number of scientific works yearly dealing with carrion and scavenging since the first publication in 1965 until the 84 works published in 2017, although these figures are still significantly lower than those of traditional research hot topics (e.g. 10 times more scientific publications for predation from a similar search; <a href="#">Olea, Mateo-Tomás &amp; Sánchez-Zapata. Carrion ecology and management. Wildlife Research Monographs. Springer. In press</a>)</p> <p>Additionally, as previously highlighted, there are also regional assessments available for some scavenger guilds (e.g. The Multi-species Action Plan to Conserve African- Eurasian Vultures; <a href="#">Botha et al. 2017</a>).</p> <p>IPBES has ample experience establishing other thematic expert panels, e.g. pollinators, pollination and food production; land degradation; invasive species; sustainable use of wild species...and undertaking thematic assessments on these and other topics.</p>
8.	<p><b>Scale of the potential impacts, and potential beneficiaries of the requested action:</b></p> <p>Biodiversity conservation in general and of highly threatened species (e.g. vultures) in particular would surely benefit from the establishment of the expert panel on scavenging and scavengers at global scale. This panel will also inform the management and research actions necessary to maintain key ecosystem functions and services such as disease control or nutrient recycling,</p>

	<p>which directly affect human health and food security. Benefits will be generated across a range of stakeholders from local communities (e.g. by preserving healthy livestock, clean water, cultural and spiritual values) to governments (e.g. by providing scientific information to guide effective conservation actions) are also expected through coordination among institutions to strengthen capacity- and knowledge-building. The initiative will contribute to the delivery of the Sustainable Development Goals (SDG), e.g. halt biodiversity loss.</p>
<p><b>9.</b></p>	<p><b>Requirements for financial and human resources, and potential duration of the requested action:</b></p> <p>Financial and human resources required as for any other thematic expert panel (e.g. to cover organization costs, travel expenses for meetings or workshops, and maybe some extra funding to develop more concrete actions as identified and prioritized by the expert panel).</p> <p>Permanent duration as IPBES thematic expert panel.</p>
<p><b>10.</b></p>	<p><b>An identification of priorities within multiple requests submitted:</b></p> <p>Only one request submitted, i.e. to create an IPBES thematic expert panel on scavengers and scavenging.</p>
<p><b>11.</b></p>	<p><b>Any other relevant information (including a list of any attachments provided):</b></p> <p>Stakeholders promoting the proposal (*contact for additional info and suggestions):</p> <p>IUCN Vulture Specialist Group (VSG)</p> <p>André Botha, Co-chair – IUCN SSC Vulture Specialist Group; *andreb@ewt.org.za</p> <p>Campbell Murn, Head of Conservation &amp; Research, Hawk Conservancy Trust and School of Biological Sciences, University of Reading, UK; *campbell@hawkconservancy.org</p> <p>Chris Bowden, Co-Chair IUCN Vulture Specialist Group, Globally Threatened Species Officer &amp; SAVE Programme Manager, RSPB</p> <p>Patricia Mateo-Tomás, Postdoctoral Researcher, Oviedo University (Spain); *rktespejos@gmail.com</p> <p>Pedro P. Olea, Assistant Professor, Autonomous University of Madrid (Spain)</p> <hr/> <p>List of other stakeholders supporting this request:</p> <p><b><u>Conventions, conservation and working groups, and NGOs (alphabetical order)</u></b></p> <p><b>African Lion Working Group</b> Sarel van der Merwe, (Pr.Sci.Nat.), Chair M. Tech.; Dipl. in Oil Cons. Engr Affiliated with the Cat- and Conservation Planning Specialist Groups IUCN/SSC Northern Cape, South Africa</p>

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