

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES  
OF WILD FAUNA AND FLORA



Thirtieth meeting of the Animals Committee  
Geneva (Switzerland), 16-21 July 2018

Species specific matters

Terrestrial species

TORTOISES AND FRESHWATER TURTLES (TESTUDINES SPP.)

1. This document has been prepared by the Secretariat.
2. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted eight Decisions on tortoises and freshwater turtles, of which the following are relevant to the Animals Committee:

***Directed to the Secretariat***

17.291 *The Secretariat shall, subject to available funding:*

- a) *in collaboration with Parties requiring assistance, and relevant experts, provide or develop guidance to CITES Scientific and Management Authorities concerning:*
  - i) *techniques to survey and monitor wild populations of tortoises and freshwater turtles, to assess impacts of offtake, and to implement adaptive management programmes in the context of the making of non-detriment findings; and*
  - ii) *the differentiation of specimens originating from the wild from those from captive or ranching production systems;*
- b) *contract consultants to develop, in collaboration with relevant Parties, experts and the International Consortium on Combating Wildlife Crime (ICCWC), a guide on categories of turtle parts and derivatives in trade, for national agencies responsible for wildlife law enforcement, to raise their awareness of the trade in these types of specimens, to enable initial recognition of such specimens, and to provide guidance on further identification resources and expertise that can be consulted; and*
- c) *in collaboration with ICCWC, relevant Parties and experts, establish a secure rapid-response identification network to connect inspecting officials to a network of verified specialists on species identification, with an initial pilot phase focusing on tortoises and freshwater turtles, that could be extended to other species, if appropriate.*

17.292 *The Secretariat shall report at the 18th meeting of the Conference of the Parties on the implementation of Decision 17.291.*

***Directed to the Animals Committee***

17.293 *The Animals Committee shall review the guidance provided or developed in accordance with Decision 17.291, paragraphs a) and b), and make recommendations for consideration by the*

Implementation of Decision 17.291, paragraph a), and Decision 17.293

3. At the 29th meeting of the Animals Committee (AC29, Geneva, July 2017), the Secretariat introduced document [AC29 Doc. 32](#), in which it outlined the extensive work that had already been undertaken on guidance for the making of non-detriment findings for trade in tortoises and freshwater turtles. The Animals Committee, at its 28th meeting (AC28, Tel Aviv, August 2015), had welcomed a study by the International Union on Conservation of Nature (IUCN) on “*Non-Detriment Findings and Trade Management for Tortoises and Freshwater Turtles - a guide for CITES Scientific and Management Authorities*”, contained in Annex of document [AC28 Doc. 15, Annex 2](#).
4. The Animals Committee agreed that the existing NDF guidance was adequate, but also expressed a desire for additional guidance in two areas: techniques to survey and monitor wild populations of tortoises and freshwater turtles to assess the impacts of offtake and implement adaptive management techniques; and guidance on the age and size restrictions of specimens to be traded, as trading in younger aged specimens is considered to have a lesser effect on the overall conservation status of the species.
5. To implement the Animals Committee’s request, the Secretariat examined the sections dealing with offtake effects on wild populations, and population survey methodology in the existing NDF guidance for tortoises and freshwater turtles to see how they might be expanded to incorporate additional features. Furthermore, the Secretariat carried out a literature review and reached out to experts and organizations working on tortoises and freshwater turtles. It asked for inputs on suitable survey methodologies, advice on restrictions in size and age of specimens collected for export, views on whether generic guidance on size and age restriction was possible or if species-specific guidance was required, and any other relevant information. In the following paragraphs, the Secretariat has compiled a summary of its review and the responses received.

Additional guidance on techniques to survey and monitor wild populations of tortoises and freshwater turtles

6. Ongoing monitoring and survey programmes for tortoises and freshwater turtle populations around the world are carried out at population level, rather than at global species level (P.P. van Dijk, personal communication). There are some notable exceptions concerning endemic species, e.g. the Madagascar Tortoise (*Astrochelys yniphora*, at Baly Bay National Park, Madagascar), the Western Swamp Turtle (*Pseudemydura umbrina*, in three small swamps in Western Australia) and the Geometric Tortoise (*Psammobates geometricus*, in two main sites in the Western Cape of South Africa and a few outliers). Generally, these ongoing surveys are part of long term academic studies that examine the impacts of environmental threats, such as monitoring disease or population recovery as part of conservation management programmes (Galapagos tortoises). Conservation status surveys have also been conducted for the South Asian Box turtle (*Cuora amboinensis*) in Malaysia and Indonesia (Schoppe, 2008; 2009).
7. To estimate the size and density of a population, capture-mark-recapture surveys seem to be the best method as it allows the calculation of the total population size based on the proportion of marked animals among later groups of captured animals. Alternatively, the absolute area count method involves marking off an area and examining every possible hiding place to yield the exact number of animals in the area. The density of aquatic turtles can be determined from the number of turtles observed per kilometer of stream. Alternatively, random searches can provide a relative measure of abundance based on the time it took to record a species, or a pre-determined number of individuals. Some relevant references are shown in the Annex to this document.
8. To assess the risk of overexploitation, the following criteria, parameters and/or indicators could be used:
  - reproductive biology of the species;
  - trade levels (legal and – where known - illegal);
  - composition and size-frequency distribution in the wild and in trade;
  - occurrence in protected areas;
  - abundance of the species in protected areas and in non-protected areas; and
  - effectiveness and implementation of legislation pertaining to tortoises or freshwater turtles.

9. In the absence of quantitative data on populations, criteria that might indicate changes in abundance should be assessed. These could include the following:
- a) collection areas increasingly distant from urban trade centers;
  - b) decreasing catch per unit effort (CPUE);
  - c) threats other than trade getting more severe;
  - d) reduced average size of individuals in the wild;
  - e) traded specimens being mainly adults;
  - f) population structure of traded individuals significantly favoring one life history stage;
  - g) sex ratio of any population being significantly different from 1:1; and
  - h) State/provincial/regional annual harvest quota far from being realized.

Guidance on size or age restrictions in offtake from the wild

10. The development of generic guidance on size and age restrictions for tortoises and freshwater turtles is found to be extremely difficult, if not impossible. For some genera, this could be possible, but guidance would depend on species-specific criteria such as fertility, the age of sexual maturity, longevity and other characteristics, or if there are environmental or anthropogenic influences. If applied, size- and/or age-restrictions should therefore be species-specific.

Recommendations

11. The Animals Committee is invited to take note of this document, and consider the information provided in paragraphs 6 to 10.

### Useful references for survey and monitoring techniques for tortoise and freshwater turtle

Eckert, K. L., Bjorndal, K. A., Abreu-Grobois, F. A. and Donnelly, M. (Eds.) (1999). *Research and Management Techniques for the Conservation of Sea Turtles*. IUCN/SSC Marine Turtle Specialist Group Publication No. 4. Washington, DC.

Heyer, W.R. (Ed.) (1994). *Measuring and Monitoring Biological Diversity. Standard Methods for Amphibians* (Biological Diversity Handbook). Smithsonian Books.

Kumthorn, T. and van Dijk, P.P. (1994). *Species Diversity and Conservation of Turtles of Western Thailand*. Nat. Hist. Bull. Siam Soc. 42: 2017-259.

McDiarmid, R. (Ed.) (2012). *Reptile Diversity: Standard Methods for Inventory and Monitoring*. First Edition. University of California Press.

Schoppe, S. (2007). *Non-Detrimental Finding Methodology for the Trade of Southeast Asian Freshwater Turtles and Tortoises (Fam. Geoemydidae)*. Unpublished report to TRAFFIC Southeast Asia, Kuala Lumpur, Malaysia,

Schoppe, S. (2008): *Science in CITES: The biology and ecology of the Southeast Asian Box Turtle and its uses and trade in Malaysia*. TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia

Schoppe, S. (2009). *Status, trade dynamics and management of the Southeast Asian Box Turtle in Indonesia* TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia.

AC28 Doc 15 Annex 2 (<https://www.cites.org/sites/default/files/eng/com/AC/28/E-AC28-15-Annex2.pdf>)