

# Non-detriment finding for saltwater crocodile (*Crocodylus porosus*)

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# VKM assessment: Non-detriment finding for saltwater crocodile

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**Competing interests**: The authors declare no competing interests in relation to this NDF.

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Scientific name: Crocodylus porosus, Schneider, 1801.

Common names: Saltwater crocodile, Estuarine crocodile, Indo-Pacific crocodile, Salt-

water crocodile.

Norwegian names: Saltvannskrokodille, deltakrokodille.

**Type of permit:** CITES Appendix I (Norwegian CITES Regulation Annex I, List A).

Country of Export: Denmark (DK) Country of Import: Norway (NO)

**Purpose and source:** The proposal concerns the import from Denmark (Krokodille Zoo) to Norway (Opplev Tropisk AS) of one live saltwater crocodile (purpose-of-transaction code Z; source code C).

For Appendix I species (Norwegian Cites Regulation Annex 1, list A) it is required to establish that exports will not be detrimental to the survival of that species, in compliance with CITES Article III. In the Norwegian CITES regulation (Lovdata 2018) the criteria for import to Norway is described in Chapter 2, Section 4.

VKM has adopted the definition of detriment, cf. Conf. 16.7 (Rev. CoP17) suggested by the U.S Fish and Wildlife Service Division of Scientific Authority:

- 1. Harvest that is not sustainable.
- 2. Harvest that harms the status of the species in the wild.
- 3. Removal from the wild that results in habitat loss or destruction, or that interferes with recovery efforts for a species.

# **Conclusion**

VKM concludes that the import of one captive bred live saltwater crocodile from Denmark to Norway for the purpose of zoological exhibition will not be harmful to the future survival of the wild population.

The conclusion is based on the following factors:

• The individual and both of its parents have been bred in captivity and the export will not have any harmful effect on the conservation status of the species.

# 1. Biological information

#### **Distribution**

*Crocodylus porosus* is one of the most widely distributed of all crocodilians. It is found in Australia, Bangladesh, Brunei Darussalam, India, Indonesia, Malaysia, Myanmar, Palau, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Timor-Leste and Vanuatu. Probably extinct in Cambodia, Thailand and Viet Nam. In the Philippines populations are scattered through remaining wetland habitats including in the Palawan Province (Species+, Webb et al., 2021).

#### Life history

Females lay 50-60 eggs during the annual wet season. The percentage of eggs lost to flooding is very high (mean =<80%) (IUCN Crocodile Specialist Group, not dated). Egg loss to non-human predators is very low (Webb et al., 2021; IUCN Crocodile Specialist Group, not dated)

# Role in the ecosystem

The species inhabits wetland areas from the sea to hundreds of kilometers inland and is found on numerous islands. Despite its name it mainly lives in freshwater habitats like rivers, lakes and swamps. It can, however, move around coasts between breeding and non-breeding sites. *Crocodylus porosus* is the largest of living crocodiles with male size at 5-7 meters (Ross and Garnet, 1989).

#### 2. Population trend

Stable. The population size is estimated to 500,000 mature individuals (Webb et al., 2021).

### 3. Conservation status

IUCN lists *C. porosus* as a species of Least Concern (Webb et al., 2021) (assessed in 2019).

#### 4. Threats

Human-crocodile conflict is the main cause of mortality for *C. porosus* in the wild, intensified by growing and expanding human population. Habitat loss and environmental pollution constitute further threats. (Webb et al., 2021).

# 5. Conservation and Management measures:

#### International legislation

*C. porosus* is listed on CITES Appendix I except in Australia, Papua New Guinea, Indonesia and Malaysia where it is listed in Appendix II. Papua New Guinea and the Philippines (population of the Palawan Islands only, subject to a zero annual export quota for wild specimens traded for commercial purposes), which are included in Appendix II. It is listed in the EU Wildlife Trade Regulations A and B with the same geographic distribution (Species+).

#### National legislation

Crocodylus porosus is legally protected in most range states.

#### Conservation measures

Management programs based on sustainable use (ranching, wild harvest, captive breeding) have been successfully implemented in Papua New Guinea, Australia, and

Indonesia, the three countries that contain the majority of the global population of the species.

# 6. Trade/use

## Legal

Skins from *C. porosus* are the most commercially valuable of crocodile skins and are traded internationally in high volumes (Webb, et al., 2021).

Farming of *C. porosus*, based on captive breeding, is undertaken in Bangladesh, China, Thailand, Singapore, Malaysia, Myanmar, Philippines, Indonesia, Papua New Guinea and Australia (Webb, et al., 2021).

#### <u>Illegal</u>

Harvesting by indigenous peoples occurs but is not considered a threat (Webb et al., 2021).

#### References

IUCN Crocodile Specialist Group. (not dated). Saltwater Crocodile *(Crocodylus porosus)*. Retrieved from

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