Review of species selected on the basis of a new or increased export quota in 2011

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CITATION

PREPARED FOR
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1. Introduction
Export quotas are usually established by each Party to CITES unilaterally, but they can also be set by the Conference of the Parties or result from recommendations of the Animals and Plants Committees. For Acipenseriformes species, quotas should be established for meat and caviar from stocks shared between different Range States [Resolution Conf. 12.7 (Rev. CoP14)]. However, in general, there is no specific requirement in the text of the Convention to establish quotas to limit the trade in CITES-listed species. Nevertheless, the use of export quotas was recognised as being such an effective management tool that Parties adopted Resolution Conf. 14.7 (Rev. CoP15) on the Management of nationally established export quotas.

When a country sets its own national export quotas for CITES species, it should inform the Secretariat (Resolution Conf. 12.3 [Rev. CoP15]), which in turn informs the Parties. Early in each year, the Secretariat publishes a Notification to the Parties containing a list of export quotas of which it has been informed. Quotas generally relate to a calendar year (1 January to 31 December)\(^1\); however, since 2008 sturgeon quotas have related to a quota year (1 March to 29 February).

The 2011 CITES export quotas for *Anguilla anguilla* were published on the CITES website (www.cites.org) on 12/01/2011 and for *Swietenia macrophylla* from Peru on 28/01/2011. Quotas for other species were initially published on 01/03/2011, and were updated on 07/03/2011, 24/03/2011, 07/04/2011, 12/05/2011 and 18/05/2011.

Based on the quotas that were available on 19/05/2011, UNEP-WCMC analysed the 2011 CITES export quotas to identify:

a) Quotas that were newly established in 2011;

b) Quotas that increased or decreased in 2011 compared with 2010 quotas (or compared with 2009 quotas if no quota was published in 2010).

This analysis was discussed at SRG56 on 20/06/2011. Four species/country combinations were selected for review where the new or increased quota in 2011 indicated that further consideration might be necessary to determine whether the trade would have a harmful effect on the conservation status of the species or on the extent of the territory occupied by the relevant population of the species. These were:

- **Eryx tataricus**/Uzbekistan: Increased quota from 300 live specimens in 2010 to 600 live specimens in 2011.
- **Hippocampus comes**/Vietnam: New quota of 12 000 live specimens. Globally Vulnerable

1.1. Trade data
Trade data included in this report were downloaded from the UNEP-WCMC CITES Trade Database on 16/08/2011.

2. Update since Analysis of 2011 CITES export quotas
Since the analysis of CITES export quotas was undertaken in May 2011, additional CITES export quotas were published on the CITES website on 22/06/2011, although none of them were of particular note.

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\(^1\) In addition, quotas for *Anguilla anguilla* in 2011 were valid from 3\(^{rd}\) December 2010 until the end of 2011, and quotas for *Swietenia macrophylla* from Peru were valid from 23\(^{rd}\) July 2010 until 22\(^{nd}\) July 2011.
3. Species reviews

REVIEW OF SPECIES SELECTED ON THE BASIS OF THE 2011 QUOTA ANALYSIS

MAMMALIA CERCOPITHECIDAE

SPECIES:  
*Cercopithecus dryas*

SYNONYMS:  
*Cercopithecus salongo*

COMMON NAMES:  
Dryasmeerkat (Dutch), Dryas Guenon (English), Dryas Monkey (English), Cercopithèque dryas (French), Mono dryas (Spanish), dryasmarkatta (Swedish)

RANGE STATES:  
Democratic Republic of the Congo

RANGE STATE UNDER REVIEW:  
Democratic Republic of the Congo

IUCN RED LIST:  
Critically Endangered

PREVIOUS EC OPINIONS:  
Previous Article 4.6(b) import suspension for wild specimens from the Democratic Republic of the Congo first imposed on 22/12/1997 and removed on 26/11/2010.

TRADE PATTERNS:

*Cercopithecus dryas* from the Democratic Republic of the Congo (hereafter referred to as DRC) was selected on the basis of a new quota of 10 wild specimens and also on the basis of its Critically Endangered status and being endemic to DRC.

DRC was subject to a European Commission decision to suspend imports of wild-sourced *C. dryas* 1997-2010. The only reported trade to the EU-27 2000-2009 consisted of one body exported by Cameroon which was reported as seized or confiscated by the United Kingdom in 2002.

There were no reported direct exports of the species from DRC to countries other than the EU-27 2000-2009.

TAXONOMIC NOTE:

Lernoud (1988) reported that at the time of writing so little was known of *C. dryas* and *C. salongo* that it was impossible to have a clear idea of their true taxonomic status. The synonym *C. salongo* is considered an age-variant of the species (Colyn *et al.*, 1991; cited by Wilson and Reeder, 2005), although this was disputed (Sarmiento, 2000). Problems with the taxonomy appeared to have arisen by *C. dryas* having been described on the basis of a photograph and *C. salongo* on the basis of a skin, and individuals of comparable age not having been studied (Sarmiento, 2000).
Cercopithecus dryas

CONSERVATION STATUS in range states

Democratic Republic of the Congo: Cercopithecus dryas is a guenon species known only from a few localities in the Democratic Republic of Congo (Groves, 2005). It is one of the smallest-sized guenons, mainly inhabiting secondary forest, while a small number inhabit swamp forest (Kuroda et al., 1985). Although Hart et al. (2008) reported that there was no reliable information on the status of the populations, they considered that the population probably did not exceed a few hundred individuals and there could be fewer than 200 individuals left in the wild (M. Hurley, pers. comm. cited by Hart et al., 2008). Hart et al. (2008) reported that no individuals were held in captivity.

Very little appears to be known about the species. In 1988 it was reported that C. dryas was known only from a single individual (skin and skull) and the picture of the captive animal and that although the collecting locality was said to be Lomela, where it came from was unknown (Colyn, 1988). Colyn (1988) was unable to find another specimen in the upper Lopori basin. More recently, it was reported that only two examples of the species were known (Seyler et al., 2010).

A field study was performed for the species, which took place in the Bisandu forest of the Kokolopori Bonobo reserve during the period from April 2005 to January 2007 (Lokasola, 2008). Previous to this study, the range of the species was uncertain as specimens were known only from bushmeat markets. Lokasola (2008) reported that C. dryas was observed at four different Kokolopori sites, where group sizes were found to range from 15 to 31 individuals. Cercopithecus dryas had also been reported from Lomela and Wamba, although these ranges were based on one specimen from each location found at bushmeat markets, and the “Wamba” specimen was later established to have been killed in Kokolopori (Lokasola, 2008). However, the presence of C. dryas was confirmed on the left bank of the Congo, where it was reportedly known only from Wamba and Lomela (Colyn, 1991; Murbahale, 2011). Kuroda et al. (1985 cited by Colyn, 1988) also reported having seen specimens of C. dryas (reported as C. salongo) in the Wamba area, where although its population density was low, it was apparently not rare.

Notably, a survey in December 1997 and January 1998 did not reveal any evidence for the species in the nearby northern section of the Salonga National Park, nor did local hunters employed as guides recognize a picture of the species (Van Krunkelsven et al., 2000). Similarly, a survey of Salonga National Park indicated that C. dryas seemed to occur near the park but not within it (Oates and IUCN/SSC Primate Specialist Group, 1996). Conversely, it was included on a list of mammals of the Salonga National Park (Paniscus, n.d.)

Hart et al. (2008) reported that the population trend for the species was unknown; however it was considered that effective management of the Kokolopori reserve was key to the survival of the species (Hart et al., 2008).

Hunting and habitat loss to agriculture were considered to be the main threats to the species (Hart et al., 2008). Bushmeat hunting was reported to be a common component of household revenue in the Congo basin, with the Democratic Republic of Congo having high estimated levels of consumption relative to neighbouring countries, and primates known to be consumed in the country (Wilkie and Carpenter, 1999). Survey teams for the Bonobo Conservation Initiative (BCI) discovered apparently permanent hunting camps in the Kokolopori; the BCI considered that the leaders of the Kokolopori reserve would ultimately be able to exercise authority to ban hunting of endangered species, although this was anticipated to be a difficult task (Bonobo Conservation Initiative, 2002). High levels of hunting (though C. dryas was not specified) were identified during a survey in Wamba (Oates and IUCN/SSC Primate Specialist Group, 1996).

Wright and Jernvall (1999) warned that species found only in one country were particularly vulnerable to political instability, including warfare, which would compromise otherwise successful conservation actions. Chapman et al. (2006) considered C. dryas to be among those vulnerable species. Researchers were forced to abandon a survey in Wamba for two years due to political instability (Oates and IUCN/SSC Primate Specialist Group, 1996). Salonga National Park was included on the list of World Heritage Sites in Danger in 1999, where it has remained until the present (WHC, 2011).
Cercopithecus dryas

C. salongo and C. dryas (although the latter was reported with a question mark) were included on a list of wild animals hunted by the Ngandu principally for food and medicine, being locally known as ekele and tolu (Takeda, 1996).

DRC is Party to the African Convention on the Conservation of Nature and Natural Resources (ACCNNR, 1968). Cercopithecus was listed in Annexe 4 of the 2004 Democratic Republic of Congo implementation of the hunting regulations (DRC, 2004) and as such C. dryas is not protected and may be hunted by holders of a hunting permit.

REFERENCES:


Cercopithecus dryas


Eryx tataricus

REVIEW OF SPECIES SELECTED ON THE BASIS OF THE 2011 QUOTA ANALYSIS

REPTILIA BOIDAE

SPECIES: Eryx tataricus

SYNONYMS: Boa tatarica, Eryx speciosus

COMMON NAMES: Grote zandboa (Dutch), Tartary Sand Boa (English), Boa des sables de Tatarie (French), tatarisk sandboa (Swedish)

RANGE STATES: Afghanistan, People’s Republic of China, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan, Uzbekistan

RANGE STATE UNDER REVIEW: Uzbekistan

IUCN RED LIST: Not evaluated

PREVIOUS EC OPINIONS: Current positive opinion for wild specimens from Uzbekistan first applied on 05/09/2002 and last confirmed on 20/06/2011.

TRADE PATTERNS:

Eryx tataricus from Uzbekistan was selected on the basis of an increased quota in 2011 from 300 live individuals in 2010 to 600 in 2011.

Uzbekistan was the main global direct exporter of wild-sourced E. tataricus 2000-2009. The majority of global direct exports of the species from all countries 2000-2009 consisted of live, wild-sourced specimens exported for commercial purposes (totalling 590 individuals, of which 50 were imported by the EU-27, according to exporter-reported figures).

Annual export quotas for wild-sourced E. tataricus from Uzbekistan have been established since 2000. Trade appears to have remained within quota (Table 1).

Direct trade from Uzbekistan to the EU-27 between 2000 and 2009 consisted entirely of live individuals exported for commercial purposes. According to Uzbekistan and its trading partners respectively, a total of 81 and 190 live E. tataricus were exported to the EU-27 2000-2009 (Table 2), of which 50 and 190 specimens, respectively, were wild sourced; the remaining exports reported by Uzbekistan were ranched.

The only reported indirect trade to the EU-27 of E. tataricus originating in Uzbekistan 2000-2009 consisted of live, wild-sourced specimens re-exported by the Russian Federation to Germany for commercial purposes, amounting to 60 specimens in 2004 and 40 specimens in 2005 (all reported by Germany).
Direct exports of *E. tataricus* from Uzbekistan to countries other than the EU-27 2000-2009 consisted entirely of live specimens, with the United States of America being the main importer. Wild-sourced individuals made up 100 per cent of exports according to importer-reported data, but only 91 per cent of exports according to exporter-reported data, with the remaining 9 per cent comprising ranched individuals (Table 3).

Table 1. CITES export quotas for wild *Eryx tataricus* from Uzbekistan and global exports, reported by the importers and by the exporter

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quota</td>
<td>50</td>
<td>50</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>1000</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Reported by Importers</td>
<td>40</td>
<td>150</td>
<td>70</td>
<td>150</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reported by Uzbekistan</td>
<td>50</td>
<td>50</td>
<td>40</td>
<td>150</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>207</td>
</tr>
</tbody>
</table>

Table 2. Direct exports of *Eryx tataricus* from Uzbekistan to the EU-27, 2000-2009. All trade was for commercial purposes and involved live specimens.

<table>
<thead>
<tr>
<th>Importer</th>
<th>Source</th>
<th>Reported by</th>
<th>2003</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>R</td>
<td>Importer</td>
<td>11</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>R</td>
<td>Importer</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>Importer</td>
<td>20</td>
<td>50</td>
<td>70</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>W</td>
<td>Importer</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Direct exports of *Eryx tataricus* from Uzbekistan to countries other than the EU-27, 2000-2009. All trade involved live specimens.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Source</th>
<th>Reported by</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>W</td>
<td>Importer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>Importer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>Importer</td>
<td>40</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td>290</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exporter</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>540</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONSERVATION STATUS in range state:**

*Eryx tataricus* is the second largest species of sand boa, reaching 91 cm (females) and 61 cm (males) (Jones, 2006). It was reported to be rare in captivity, but Jones (2006) considered that due to its “attractiveness and good disposition” it was set to become more popular and readily available in the future. *Eryx tataricus speciosus* was reportedly sought after by many enthusiasts, and Jones (2006) commented that he had a long waiting list of people wanting the subspecies, even at the relatively high prices dictated by short supply and high demand. Captive breeding of the species was reported to be relatively simple (Jones, 2006).
Eryx tataricus

The species was reported to be widely distributed in central and eastern Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, eastern Turkmenistan, the Islamic Republic of Iran, Afghanistan, Pakistan, north-western India, western People’s Republic of China and in Southern Mongolia (Ananjeva et al., 2006). McDiarmid et al. (1999), however, did not list India as a range State.

Harrison (2003) noted that determining the natural range of *E. tataricus* is complicated due to the difficulty some authors have had defining the taxon. Of the three subspecies recognised by McDiarmid (1999) (*E. t. tataricus*, *E. t. speciosus* and *E. t. vittatus*), two were regarded by some authors as distinct species (*E. tataricus* and *E. vittatus*) (Tokar, 1989; Ananjeva et al., 2006). Some authors referred the forms from Inner Mongolia and Southern Gobi to *E. miliaris* (Ananjeva et al., 2006). In addition, Harrison (2003) noted that some authors have had difficulty distinguishing *E. tataricus* from both *E. miliaris* and *E. jaculus*.

*Eryx tataricus* was included in the national Red Data Books/Red lists of Mongolia (Terbish et al., 2006), Kyrgyzstan (Milko & Panfilov, 2006 cited by Harrison, 2003) and Turkmenistan (1985, 1999 cited by Ananjeva et al., 2006). It was considered to occur sparsely and to be declining in Kyrgyzstan (Milko & Panfilov, 2006 cited by Harrison, 2003). In Mongolia the species was evaluated as Near Threatened (Terbish et al., 2006) due to habitat loss through mining, droughts and drying of water sources (Terbish et al., 2006).

**Uzbekistan:** Amirkhanov (1987) reported the species as occurring in the following protected areas in Uzbekistan: Aral-Paigambar (common), Arnasansky (occurrence unconfirmed) and Nuratinsky (occurrence unconfirmed). McDiarmid et al. (1999) listed Uzbekistan as within the range of the species but provided no further information. Vashetko *et al.* (2003) reported the occurrence of the species in the Western Tian Shan (north-eastern Uzbekistan), including in the following localities: Chirchik, Karzhantau, Khodjikent, Handaylyk, Kaynar-sai, Aktas, Aksak-Ata, Nurekata, Sanganak and Kamchik-sai.

Darevsky and Orlov (1988) reported that the species was uncommon in Uzbekistan. The species is not included in the Red Data Book for Uzbekistan (Azimov, 2003). No evidence was found that the species has any protection status in Uzbekistan.

In 2002 when the annual export quota had been increased from 50 to 300 and the annual trade in the previous two years was 50 individuals, a positive opinion was formed. *Eryx tataricus* from Uzbekistan was reviewed in 2008 for SRG 45 when the annual export quota increased from 300 to 1000. However, the report was not discussed at that meeting or at later meetings.

REFERENCES:


Eryx tataricus


**Hippocampus comes**

**REVIEW OF SPECIES SELECTED ON THE BASIS OF THE 2011 QUOTA ANALYSIS**

**ACTINOPTERYGII SYNGNATHIDAE**

**SPECIES:** *Hippocampus comes*

**COMMON NAMES:** Tiger-tail Seahorse (English)

**RANGE STATES:** Indonesia, Malaysia, Philippines, Singapore, Thailand, Viet Nam

**RANGE STATE UNDER REVIEW:** Viet Nam

**IUCN RED LIST:** Vulnerable

**PREVIOUS EC OPINIONS:**
- Current Article 4.6(b) import suspension for wild specimens from Indonesia first imposed on 01/10/2007 and last confirmed on 07/09/2011.
- Previous negative opinion for wild specimens from Indonesia formed on 15/11/2005.

**TRADE PATTERNS:**

*Hippocampus comes* from Viet Nam was selected on the basis of a new 2011 quota of 12,000 live individuals, and on the basis of its Vulnerable status globally.

Indonesia was the main global direct exporter of wild-sourced *H. comes* between its listing in 2004 in Appendix II and 2009, with a total of around 7000 and 12,000 wild-sourced live specimens exported from the country during this period, according to importers and the exporter, respectively.

Direct trade from Viet Nam to the EU-27 2004-2009 consisted entirely of live, captive-born individuals traded for commercial purposes (Table 1). The majority of trade was to France, with the remainder to the United Kingdom.

There was no reported indirect trade to the EU-27 of *H. comes* originating in Viet Nam.

The only reported direct trade from Viet Nam to countries other than the EU-27 was in live individuals exported to the United States of America for commercial purposes (Table 2). Wild-sourced individuals made up 21 per cent of exports according to importer-reported figures, with most of the remainder being captive-born.
Table 1. Direct exports of *Hippocampus comes* from Viet Nam to the EU-27, 2004-2009. All trade involved live, captive-born individuals traded for commercial purposes.

<table>
<thead>
<tr>
<th>Importer</th>
<th>Reported by</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>Importer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3827</td>
<td>3827</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exporter</td>
<td></td>
<td></td>
<td></td>
<td>4350</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Importer</td>
<td></td>
<td>200</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Exporter</td>
<td></td>
<td>1000</td>
<td>200</td>
<td>1200</td>
</tr>
</tbody>
</table>

Table 2. Direct exports of *Hippocampus comes* from Viet Nam to countries other than the EU-27, 2004-2009. All trade involved live individuals exported for commercial purposes.

<table>
<thead>
<tr>
<th>Source</th>
<th>Reported by</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Importer</td>
<td>152</td>
<td>1235</td>
<td>631</td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Exporter</td>
<td>1800</td>
<td>2000</td>
<td>3500</td>
<td>7300</td>
</tr>
<tr>
<td>I</td>
<td>Importer</td>
<td>57</td>
<td></td>
<td>57</td>
<td></td>
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<tr>
<td></td>
<td>Exporter</td>
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<tr>
<td>W</td>
<td>Importer</td>
<td>466</td>
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**TAXONOMIC NOTE**

It was noted that the species may be confused with *Hippocampus kuda* or *H. spinosissimus* (Lourie et al., 2004).

**CONSERVATION STATUS in range states**

*H. comes* was reported to occur in Indonesia (south Sumatra, south Kalimantan), Malaysia (Johor, Penang), Singapore, Thailand (west coast), Viet Nam (Khan Hoa) and the Philippines (Lourie et al., 2004; S. Lourie, unpublished data, in Morgan and Lourie, 2006).

The habitat of adults was reported to be dominated by stony and hard corals, sponges (Morgan and Lourie, 2006) or seagrass, in beds with coral substrate (Morgan and Vincent, 2007). The habitat of the young was in reef-flat macroalgal beds (S. Morgan, unpublished data, in Morgan and Lourie, 2006). *H. comes* was found to inhabit shallow waters between the low tide line and depths of up to 10 m, with 20 m being the greatest depth the species had been recorded in (Kuiter, 2000; Lourie et al., 2004).

The maximum recorded adult height was reported to be 18.7 cm (Foster and Vincent, 2004) to 26.4 cm SL<sub>c</sub> (curved Standard Length) (Meeuwig and Lafrance, 2001; in Morgan and Lourie, 2006). The species was reported to reach maturity at about one year of age (Project Seahorse, 2002), with the height at first maturity 96 mm SL<sub>c</sub> for half the males, although reproduction in individuals smaller than 105 mm has not been confirmed (Morgan and Lourie, 2006).

The frequency of reproduction was thought to be every 14 to 21 days (Morgan and Lourie, 2006), with a year round breeding season (Macansantos, unpubl. data, in Foster and Vincent, 2004). Each brood was found to lead to the release of about 400 young (Perante et al., 2002; Morgan and Lourie, 2006). The rate of reproduction was reported to be size dependant, with 45 per cent of males pregnant at 122 mm SL<sub>c</sub> (L. Brady, unpublished data, in Morgan and Lourie, 2006) and 90 per cent at >204 mm SL<sub>c</sub> (Morgan and Lourie, 2006). The life span of *H. comes* was estimated at between 2.6 to 3.7 years (Morgan and Lourie, 2006), but the rate of natural mortality was considered to be high (Meuwig, unpubl. data, in Foster and Vincent, 2004). However, the life history parameters were considered to be insufficiently known (Vincent et al., 2007).
Hippocampus comes

The Philippines, where the species was considered to be widely distributed (Morgan and Lourie, 2006), was reported to be the main range of the species (Project Seahorse, 2002). Greatest abundances were reported to occur in the central Philippines (Perante et al., 2002; A. Maypa, unpublished data., M. Pajaro, pers. comm. in Morgan and Lourie, 2006) However, Morgan and Lourie (2006) considered the abundances outside the Philippines to be unknown.

Direct exploitation, by-catch and habitat destruction were considered to be major threats to Hippocampus spp., with 20 million specimens estimated to be traded annually in 1995 (Vincent, 1996) and higher numbers in the early 2000s (Salin et al., 2005; Giles et al., 2006). An estimated 95 per cent of specimens in trade were being used for traditional (Chinese) medicine (Vincent et al., 2011), but Hippocampus species were also found to be a suitable food source for human consumption (Lin et al., 2008). Fewer specimens were reported to be used for the live aquarium trade, however pressures on particular populations or species were considered substantial (Vincent et al., 2011). Foster and Vincent (2004) considered Hippocampus species likely to be vulnerable to fishing mortality, due to biological characteristics such as low fecundity and obligate parental care. These characteristics were thought to explain the markedly declining Hippocampus populations observed by fishermen and traders worldwide (Vincent, 1996). Project Seahorse (2002) considered H. comes may be particularly susceptible to decline. However, Martin-Smith et al. (2004) reported that the species recovered rapidly following the establishment of a no-take Marine Protected Area in Handumon in northern Bohol (Philippines).

H. comes was reported to be traded for both Traditional Chinese Medicine (TMC) and for the live aquarium trade, with significant rates of exploitation observed in the central portion of its range (Morgan and Lourie, 2006). However, specimens were also considered threatened through by-catch and habitat degradation (Project Seahorse, 2002). Morgan and Lourie (2006) reported that threats outside the Philippines remained unknown, but suggested that similar pressures may apply elsewhere.

Vincent et al. (2007) reported that the Hippocampus fishery in central Philippines appeared severely depleted. H. comes was found to be among the most commonly traded Hippocampus species and such evidence of declines in seahorse availability were considered to be disconcerting (Vincent, 1996) for this species (Project Seahorse, 2002).

The species was classified as Vulnerable by the IUCN, on the basis of the substantial trade and by-catch affecting the species, inferred declines of 30-50 per cent and habitat loss (Project Seahorse, 2002).

Following recommendations made by the Animals Committee at its 20th meeting, a minimum height limit of 10 cm was introduced for the international trade in wild Hippocampus specimens (CITES Secretariat, 2004). The application of a minimum size limit for wild specimen in international trade was later made voluntary and it was recommended to use other ways to make non-detriment findings (CITES Secretariat, 2005).

Koldewey and Martin-Smith (2010) reported that aquaculture was not yet able to produce sufficient Hippocampus specimens to cover market demands. However, Job et al. (2006) considered H. comes to be a suitable species for aquaculture, due to its popularity and its relatively high survival rate (90 per cent) and rapid growth in aquaculture.

Viet Nam: The species presence in Viet Nam has been confirmed from Khan Hoa [south central Viet Nam], where the species was considered to be rare (Lourie et al., 1999).

Viet Nam, along with India, Indonesia, Philippines and Thailand, was reported to be one of the top five producers of dried Hippocampus spp. in the world (Project Seahorse, unpubl. data, in Giles et al., 2006), with the majority of Hippocampus specimens thought to be sourced from trawl by-catch (Giles et al., 2006). Targeted fisheries were reported to be limited (Giles et al., 2006) and daily catch rates were considered to be low (Giles et al., 2006). Annual by-catch of Hippocampus specimens was estimated at about 2.2 million specimens in the five coastal provinces of Vietnam (Giles et al., 2006) and Vincent (1996) estimated the annual trade of Hippocampus spp. in Viet Nam to amount to five tonnes (dry weight), with data pointing at reductions in size of specimens and population declines. Most specimens were reported to be exported
**Hippocampus comes**

into China, “generally through unofficial and unregulated channels” (Giles et al., 2006). However, internal trade in “seahorse tonic” was also reported to exist (CITES Secretariat, 2002). Meeuwig et al. (2006) observed that H. spinosissimus and H. trimaculatus were caught in highest numbers and assumed that H. comes’ being caught in lower numbers was due to differences in habitat (shallower water and/or coral reef habitat).

Job (pers. obs., in Job et al., 2006) considered the species highly exploited in Viet Nam. Catches of Hippocampus specimens were reported to have declined, according to fishers and buyers surveyed (Giles et al., 2006), however Vincent (1996) considered the destruction of habitat a possibly larger threat than trade.

Viet Nam, where the species was thought to have been bred successfully since 2006, was reported to presently be the only country where the species was being bred in captivity (FAO, 2010). However, concerns were raised over the effects of capture of broodstock on the recruitment population and on the possibility of disease transfer from the juveniles released back to the wild (FAO, 2010).

**REFERENCES:**


**Hippocampus kelloggi**

**REVIEW OF SPECIES SELECTED ON THE BASIS OF THE 2011 QUOTA ANALYSIS**

**ACTINOPTERYGII SYNGNATHIDAE**

**SPECIES:** *Hippocampus kelloggi*

**SYNONYMS:** *Hippocampus suezensis*

**COMMON NAMES:** Kellog's zeepaardje (Dutch), Great Seahorse (English), Kellog's Seahorse (English), Offshore Seahorse (English), O-umi-uma (Japanese)

**RANGE STATES:** Australia, China, India, Indonesia, Japan, Malaysia, Pakistan, Philippines, Taiwan, Province of China, Thailand, United Republic of Tanzania, Viet Nam

**RANGE STATE UNDER REVIEW:** Viet Nam

**IUCN RED LIST:** Data Deficient

**PREVIOUS EC OPINIONS:** Current Article 4.6(b) import suspension for wild specimens from Indonesia first imposed on 03/09/2008 and last confirmed on 07/09/2011.

Previous negative opinion for wild specimens from Indonesia formed on 26/09/2006.

**TRADE PATTERNS:**

*Hippocampus kelloggi* from Viet Nam was selected on the basis of a new 2011 quota of 7000 live wild individuals and on the basis of its globally Data Deficient status.

Thailand was the main global direct exporter of *H. kelloggi* since its listing in CITES Appendix II in 2004 up to 2009. Exports from the country during this period comprised a total of around 11 000 kg of bodies and 300 bodies (reported without units) according to the importers, and 16 000 kg of bodies and 2000 bodies (reported without units) according to Thailand, all of which were wild-sourced.

There has been no reported direct or indirect trade in *H. kelloggi* originating in Viet Nam to the EU-27 since its listing in Appendix II in 2004.

Direct exports from Viet Nam to countries other than the EU-27, 2004-2009 consisted of bodies and live individuals traded for commercial purposes, with the United States of America being the main importer...
Hippocampus kelloggi

(Table 1). Wild-sourced individuals made up 99 per cent of importer-reported trade, the remainder being captive-born, and 100 per cent of exports reported by Viet Nam were wild-sourced.

Table 1. Direct exports of Hippocampus kelloggi from Viet Nam to countries other than the EU-27, 2004-2009. All trade was for commercial purposes.

<table>
<thead>
<tr>
<th>Importer Term Source</th>
<th>Reported by</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2009</th>
<th>Total</th>
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<td>W Importer</td>
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<tr>
<td>Taiwan, Province of China bodies</td>
<td>W Importer</td>
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<td>1860</td>
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<tr>
<td>United States of America live</td>
<td>F Importer</td>
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<td>150</td>
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<td>13199</td>
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<td>W Importer 2009</td>
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**TAXONOMIC NOTE**

Several taxonomic revisions of the genus Hippocampus, including Hippocampus kelloggi, were reported to have taken place (Lourie et al., 1999b) and Lourie et al. (2004) considered the identification of H. kelloggi to be difficult, due to the species' variable and less distinctive character, as well as morphological similarity to H. algiricus, H. ingens, H. kuda and H. spinosissimus.

**CONSERVATION STATUS in range states**

H. kelloggi was reported to occur from the western and eastern Indian Ocean to the north-western and western central Pacific, with occurrence in the south-western Pacific considered uncertain (Project Seahorse, 2002). The species' range was considered to be relatively wide, with reports from Zanzibar (Tanzania), Pakistan, India, southeast Asia, and north to China and Japan (Project Seahorse, 2002).

The species was found to be associated with gorgonian corals and sea whips (Lourie et al., 2004) and reported to occur in areas with soft bottom sea floor (Kuiter, 2000). H. kelloggi was reported to occur in deeper water (Meeuwig et al., 2006), with the maximum reported depth 152 m (Lourie et al., 2004).

The maximum recorded adult height was reported to be about 28 cm (Kuiter, 2000), with the height at first maturity being 15 cm (Lourie et al., 1999a; in Foster and Vincent, 2005). The life history of this species was considered to be virtually unknown (Lourie et al., 2004).

The species was classified as Data deficient by the IUCN (Project Seahorse, 2002), as although trade levels were considered to be high, the proportion of the population represented in this trade was unknown. However, the species was reported to be rarely caught by targeted fisheries (Lourie unpubl. data, Pajaro unpubl. data, in Project Seahorse, 2002) or in trawls (Pajaro unpubl. data, in Project Seahorse, 2002) and its distribution range was considered to be wide (Project Seahorse, 2002).

Direct exploitation, by-catch and habitat destruction were considered to be major threats to Hippocampus spp., with 20 million specimens estimated to be traded annually in 1995 (Vincent, 1996) and higher numbers in the early 2000s (Salin et al., 2005; Giles et al., 2006). An estimated 95 per cent of specimens in trade were reported to be used for Traditional (Chinese) Medicine (Vincent et al., 2011), but Hippocampus species were also found to be a suitable food source for human consumption (Lin et al., 2008). Fewer specimens were reported to be used for the live aquarium trade, however pressures on particular populations or species were considered substantial (Vincent et al., 2011). Foster and Vincent (2004) considered Hippocampus species likely to be vulnerable to fishing mortality, due to biological characteristics such as low fecundity and obligate parental care. These characteristics were thought to explain the markedly declining Hippocampus populations observed by fishermen and traders worldwide (Vincent, 1996). Project Seahorse (2002) considered data on H. kelloggi to be extremely limited, but noted that they were not aware of any information on declines in numbers for the species or any subpopulations.
Hippocampus kelloggi

H. kelloggi was reported to be traded for use in traditional medicine, as curios (dried) and live for aquarium and hobbyist use (Lourie et al., 2004). The relatively large size of the species, and the smooth texture and pale complexion of dried specimens, were reported to be the reasons for the high demand (Lourie unpubl. data, Pajaro unpubl. data, in Project Seahorse, 2002). However, the proportion of the population exploited was considered unknown (Project Seahorse, 2002).

Following recommendations made by the Animals Committee at its 20th meeting, a minimum height limit of 10 cm was introduced for the international trade in wild Hippocampus specimens (CITES Secretariat, 2004). Foster and Vincent (2005) however pointed out that this restriction would not protect H. kelloggi from overexploitation, as the height at first maturity is well above 10 cm. The application of a minimum size limit for wild specimen in international trade was later made voluntary and it was recommended to use other ways to make non-detriment findings (CITES Secretariat, 2005). Range States were reported to provide varying levels of protection to H. kelloggi (Foster, 2008).

Koldewey and Martin-Smith (2010) did not clarify whether this species was being bred in captivity anywhere, however they reported that aquaculture was not yet able to produce sufficient Hippocampus specimens to cover market demands.

**Viet Nam:** The species occurrence was confirmed in the Gulf of Tonkin (Nguyen, 1993; in Nguyen and Do, 1998), Quang Nam-Da Nang, Khanh Hoa and Binh Thuan provinces (Lourie et al., 1999b).

H. kelloggi was reported to be included as Vulnerable in the Viet Nam Red Data Book (Ministry of Science, 1992; in Giles et al., 2006), although Lourie et al. (1999b) pointed out that the species appeared to have been misidentified or synonymised as H. trimaculatus. Giles et al. (2006) noted that little was known on the status of Hippocampus populations in Viet Nam, or on the nature and size of the trade.

Viet Nam, along with India, Indonesia, Philippines and Thailand, was reported to be one of the top five producers of dried Hippocampus spp. in the world (Project Seahorse, unpubl. data, in Giles et al., 2006), with the majority of Hippocampus specimens thought to be sourced from trawl by-catch (Giles et al., 2006). Targeted fisheries were reported to be limited (Giles et al., 2006) and daily catch rates were considered to be low (Giles et al., 2006). Annual by-catch of Hippocampus specimens was estimated at about 2.2 million specimens in the five coastal provinces of Vietnam (Giles et al., 2006) and Vincent (1996) estimated the annual trade of Hippocampus spp. in Viet Nam to amount to five tonnes (dry weight), with data pointing at reductions in size of specimens and population declines. Most specimens were reported to be exported into China, “generally through unofficial and unregulated channels” (Giles et al., 2006). However, internal trade in “seahorse tonic” was also reported to exist (CITES Secretariat, 2002).

Catches of Hippocampus specimens were reported to have declined, according to fishers and buyers surveyed (Giles et al., 2006), however Vincent (1996) considered the destruction of habitat a possibly larger threat than trade.

Combined landings of H. kelloggi and H. histrix accounted for less than 1 per cent of the by-catch observed in landings of the Cua Be fishing fleet (small fishing community located on the Central Coast and reported to be a major source for Hippocampus specimens), between 1996 and 2000 (Meeuwig et al., 2006). This was thought to be due to H. kelloggi’s occurrence in deeper water than targeted by the trawling, rather than to be reflecting the species abundance (Meeuwig et al., 2006).

Additional information has been sought from the country in the context of the Review of Significant Trade process, and this information will be made available in 2012 at the 26th meeting of the Animals Committee.

**REFERENCES:**

Hippocampus kelloggi


