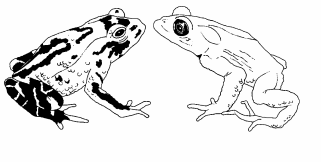
CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Eighteenth meeting of the Animals Committee
San José (Costa Rica), 8-12 April 2002

Conservation of seahorses and other members of the family Syngnathidae
(Decisions 11.97 and 11.153)

REPORT OF THE WORKING GROUP

This document has been prepared by the Chairman of the working group on syngnathids.

1. This report provides an overview of progress made by the Secretariat, the Animals Committee (AC) and the working group on syngnathids towards implementation of Decisions 11.97 and 11.153.

2. This document provides an update on the anticipated technical workshop on Syngnathidae, a review of responses to Notifications to the Parties Nos. 2001/023 and 2001/034; and a review of responses about long-term research and community involvement.

3. The working group will consider this report at the 18th meeting of the Animals Committee (AC18), as part of the development of the discussion paper which the AC should submit for consideration at the 12th meeting of the Conference of the Parties (Decision 11.97).

Technical workshop

4. In Decision 11.153, the CITES Secretariat is directed *inter alia* to:

   a) assist in obtaining funds from interested Parties, intergovernmental and non-governmental organizations, exporters, importers and other stakeholders, to support a technical workshop of relevant experts on the conservation of seahorses and other syngnathids;

   b) contingent on the availability of external funding, cooperate with other relevant bodies, including the fisheries sector, to convene a technical workshop to consider and review biological and trade information that would assist in establishing conservation priorities and actions to secure the conservation status of seahorses and other syngnathids;

a) Funding:

The following Parties and organizations have generously offered to support the technical workshop:

i) United States of America (an initial offer of USD 23,000 followed by further financial support)

ii) Australia (AUD 20 000, equivalent to about USD 10,000)

iii) Hong Kong Chinese Medicine Merchants Association (HKD 20,000, equivalent to about USD 2,500)

iv) International Fund for Animal Welfare (USD 5,000)

USD 40,000 should enable an adequate technical workshop to be held. The Secretariat has expressed a hope to raise a further USD 20,000 in order to include more expertise, particularly from range States that are major syngnathid traders. The working group encourages any other interested Parties or non-governmental organizations to contact the Secretariat with offers of funding, to ensure the success of this meeting.

b) Venue:

As noted in document AC17 Doc. 18.1, the Philippines has kindly offered to host the CITES technical workshop on syngnathids.

c) Timing:

The Secretariat and the AC had earlier agreed that it might be appropriate to hold the technical workshop on syngnathids during the week of 18-22 February 2002. Such timing became impossible because adequate funding was not secured until the end of January 2002, by which time it had become logistically impossible to organize it by the proposed dates. The workshop had to be deferred, therefore, until after AC18, both to allow for sufficient organizational time and to avoid clashes with other CITES commitments. It will now probably be held in the second half of May 2002.

d) Format:

The working group decided at AC17 that the workshop would cover four days and include the following elements: (1) a survey of knowledge of Syngnathidae biology, fisheries, trade, conservation and legislation; (2) the examination of specific issues of importance; (3) a field trip to fishing communities that rely heavily upon seahorses, with informal discussions; and (4) the development of recommendations in order to contribute to the required AC discussion paper for CoP12.

Notifications from the Secretariat

5. In Decision 11.153, the Secretariat is also directed to:

c) request Parties to provide, for discussion at the technical workshop, all relevant available information concerning the status, catches and bycatches of, and trade in, seahorses and other syngnathids and on any domestic measures for their conservation and protection, and to review the adequacy of such measures;

6. The Secretariat consequently issued two Notifications to the Parties, No. 2001/023 of 16 March 2001 and No. 2001/034 of 18 May 2001.

7. In Notification to the Parties No. 2001/023, the Secretariat sought information on agencies and institutions, research and researchers, species and ranges, population data, fisheries and trade data, conservation concerns, national protection (if any). Parties were asked, where possible, to distinguish between seahorses and other syngnathids, and give more details by species where possible.

8. In Notification to the Parties No. 2001/034, the Secretariat requested offers of funding for the technical workshop, iterated the request for information on syngnathids (made in Notification to the Parties No. 2001/023), expressed an interest in learning about scientific research promoting conservation and sustainable use of syngnathids, and sought reports on local community involvement.

a) Responses to the Notifications to the Parties:

The Secretariat received a total of 13 responses to the two Notifications of the Parties from the following sources: Australia, Belgium, Ecuador, European Commission (EC), Germany, Israel, New Zealand, Romania, Slovakia, South Africa, Sweden, Ukraine and the United States of America. Italy also provided a partial and unofficial preliminary response to the working group at AC17.

Except for Slovakia, all respondents are, or include, range States. None of the most significant exporters or importers of dried seahorses, or of the major exporters of live seahorses, responded to the notification. However, Australia is the world's major exporter for (dried) pipehorses, *Solegnathus*, while Ecuador and the United States of America also export syngnathids. The United States of America and European countries are thought to be the major importers for live seahorses.

The working group thanks all Parties for their most helpful input. Much valuable knowledge was acquired even though Parties sometimes had to draw conclusions from incomplete pools of data or preliminary reports. Information is synthesized here in the categories outlined in Notification to the Parties No. 2001/023. Comments come direct from the Parties unless otherwise noted, although the working group has collated certain raw data.

Australia and the United States of America had submitted a substantial discussion document at CoP11 (Doc 11.36) on the global status of seahorse research, trade and conservation activities. This is not reviewed here, except for Attachment A that refers specifically to information on fisheries and legislation in the United States of America, and serves as its response to the Notification (at its request).

b) Agencies and Institutions:

Notification to the Parties No. 2001/023 requested information on:

a) Government agencies and other institutions that have or may have information on the biology, catch and bycatch of, and trade in seahorses and other syngnathids

Responses indicate that expertise related to syngnathid biology and conservation was spread over many organizations. In New Zealand, for example, a citizens' monitoring group had some of the few data on syngnathid distributions. Zoos and aquaria were active in captive rearing projects in several countries.

Table 1: Reported repositories of information on syngnathids

Party / Body	Govt agencies	Museums	Zoos / aquaria	NGOs / conservation agencies	Universities / research institutes	Researchers
Australia	1	1				1
Belgium			2			
Ecuador						0
EC						
Germany						
Israel	2		1		2	
(Italy)			1		5	5
New Zealand	1	1		1	1	1
Romania			2		1	
Slovakia	0	0	0	0	0	0
South Africa	1			1	1	2
Sweden		1			1	1
Ukraine	1					
United States of America						

c) Research and researchers:

Notification to the Parties No. 2001/023 requested information on:

b) Research (including biological, fisheries, trade and market studies) that is currently being undertaken on seahorses and other syngnathids. Please provide contact details of the researchers.

Responses from Australia, Italy, New Zealand, South Africa, Sweden and Ukraine indicated awareness of one or more syngnathid research projects nationally: these included taxonomy, physiology, reproduction, behaviour, and ecology. In addition, Belgium, Israel, Italy and Romania all reported captive rearing projects for one or more species of syngnathid. Only Ecuador and Slovakia explicitly recorded a dearth of syngnathid research, while Germany and the United States of America did not comment specifically. The syngnathid working group notes that some active researchers active in reporting States were apparently not known to the CITES Authorities.

d) Species and ranges:

Notification to the Parties No. 2001/023 requested information on:

c) Species of seahorses and other syngnathids that occur in each country. Please indicate the distribution of each species on a map, if possible.

Many Parties reported on the identity and distribution of syngnathids in national waters, often in considerable detail. Some taxonomic confusion was evident in the replies, with old synonyms still being cited and implausible reporting of species usually found very distant from the stated locations. A measure of the difficulties comes from the EC records, showing imports of *Hippocampus erectus* from 10 countries, six of which are on the opposite side of the world from this species' range. Likewise, Israel reported two very different estimates of species richness, both from knowledgeable sources.

About 36% of all syngnathids may be found in Australian waters, according to Australia, which provided distribution data for 38 species. The national *Conservation overview and action plan for Australian threatened and potentially threatened marine and estuarine fishes* listed 7 new species among the 38 assessed, presaging an expansion of the number of recognized species of syngnathid nationally.

Table 2: Syngnathid distribution, with data as it was reported. S: seahorses, P: pipefishes
* Israel provided different estimates from two sources

Party / Body	All syngnathids	Seahorses (*Hippocampus*)	Pipefishes & pipehorses	Seadragons (*Phyllopteryx* & *Phycodurus*)	Distribution information provided
Australia	120			2	
Belgium	1				
Ecuador		1	3		S & P
European Union					
Germany					
Israel		5 / 2	27 /6		
(Italy)		2	9		
New Zealand					
Romania	7	1	6		S & P
Slovakia					
South Africa	24	6	18		S
Sweden	6	0	6		
Ukraine	7 (5 endemic)	1	6		S & P
United States of America					

e) Population data:

Notification to the Parties No. 2001/023 requested information on:

d) Any population data on seahorses and other syngnathids that may be available, particularly data indicating known or inferred changes in number over time.

Most respondents indicated that the biology of virtually all syngnathids is very poorly studied. Ukraine, in particular, mentioned a need to study the current state of populations, in order to develop proper conservation action plans.

Australia responded that apparently there was not sufficient population data of most of its syngnathid species to allow a species conservation assessment. Nonetheless, it appended important and informative excerpts from the national *Conservation overview and action plan for Australian threatened and potentially threatened marine and estuarine fishes* . This remarkable compilation provided available data for 21 seahorses, 10 pipefishes, five pipehorses, and both seadragons on a long list of issues: taxonomy, common name, current conservation status, distribution, habitat, behaviour and biology, size, evidence for decline, Australian Marine Protected Areas where the species occurs, suggested conservation status, threats, critical habitats, and recovery objectives/management actions required.

f) Fisheries, bycatch, and trade:

Notification to the Parties No. 2001/023 requested information on:

e) Existing monitoring of landings or trade in seahorses and other syngnathids. If any, please provide any fisheries or Customs codes used, and any available data on catch, import, export, re-export and domestic trade.

Australia: Australia reported that all export of wild-caught or captive-reared syngnathids is subject to governmental control (see *Conservation concerns and actions* below).

The response cited exports of a total of 1,502 individual animals and 416 kg of dried syngnathids from Australia during the 2000/2001 financial year. Three species of seahorses, 2 species of pipefish, and both species of seadragons were target caught and variously exported live to Canada, Germany, Japan, Singapore, Taiwan, and the United States of America. The big-bellied seahorse, *Hippocampus abdominalis*, comprised more than 86% of the exports. Two species of pipehorse, *Solegnathus dunckeri* and *S. hardwicki*, landed as bycatch in a Queensland trawl fishery, were reportedly exported dead and dried to Taiwan. The working group notes that Hong Kong Customs data also show significant *Solegnathus* imports from Australia.

In addition to the text report on trade in 2001, Australia attached tables that documented all export transactions of Syngnathidae from Australia from 1 January 2000 to mid-2001. The working group notes that these data total 5,634 individual syngnathids and 534 kg of dried pipehorses, and presumes that the mismatch with the totals cited above arose from the greater time period covered by the tables.

Table 3:Australian export transactions for Syngnathids from 1 January 2000 to mid-2001. Some export permits appear not to have been activated

Species	Form	Number	Wild-caught	Captive-reared	Weight (kg)	Dates covered (dd/mm/yy)
Seahorses						
Hippocampus abdominalis	Live	4,197	0	4,197		10/2/00 - 24/7/01
Hippocampus abdominalis	Dried	1,000	0	1,000		8/3/01
Hippocampus angustus	Live	59	59	0		3/2/00 - 24/11/01
Hippocampus breviceps	Live	60	2	58		3/2/00 - 28/5/01
Hippocampus whitei	Live	24	0	24		3/2/00 - 24/7/01
Seadragons						
Phycodurus eques	Live	62	0	62		10/2/00 - 7/3/01
Phyllopteryx taeniolatus	Live	232	50	182		3/2/00 - 28/5/01
Pipehorses						
Solegnathus dunckeri	Dried		0	0	198 kg	9/5/00 - 4/10/01
Solegnathus hardwicki	Dried		0	0	336 kg	9/5/00 - 4/10/01
Solegnathus spinosissimus	Live	0	0	0		3/2/00 - 24/11/00
	Total	**5 634**	**111**	**5 523**	**534 kg - all wild caught**	

Ecuador: Reported exports of dried seahorse were as follows: 0.3 tonnes worth USD 1,600 in 1995; 0.3 tonnes worth USD 1,500 in 1996; and 2.1 tonnes worth USD 4,000 in 1997. The

working group notes that values were much lower than is usual for dried seahorses, especially for *Hippocampus ingens,* the large species found in Ecuador.

European Commission: An import monitoring requirement for the genus *Hippocampus* (seahorses) is included in Annex D of Council Regulation (EC) No.338/97. Declarations are required for all live seahorses and dead seahorses that are substantially whole. The working group offers the following brief analysis from data provided by the EC and Germany in response to the notification. The working group has summarized the data in Attachments A & B. Imports of dried seahorses, at least, appear to be under-reported

i) The total numbers of live seahorses imported to the European Union during the four years of completed records were 2,523 (1997), 13,913 (1998), 23,483 (1999), and 30,797 (2000). The increasing numbers over the four years indicate either a growing trade or better reporting.

ii) The data showed imports of 15 species of *Hippocampus*, but the taxonomy was often clearly wrong, with a complete mismatch of the species' documented range and the purported source country.

iii) Seahorse imports were recorded from 24 countries, from all other continents, for 1997 to 2000. The top four sources were Indonesia, Sri Lanka, the Philippines, and Brazil, followed by Singapore and the United States of America.

iv) Ten EU countries reported importing seahorses, with the top four countries by number of live seahorse being Germany, Italy, the Netherlands, and Austria, followed by United Kingdom and Belgium.

v) **Belgium** provided the national data that it had contributed to the EC monitoring. It recorded importing eight species of seahorses, from Brazil, Colombia, Haiti, Indonesia, Philippines, Singapore, Sri Lanka, Thailand and the United States of America. The numbers and sources differed slightly from the EC reporting on Belgium's imports.

vi) **Germany** also responded with national data that it had contributed to the EC monitoring. It reported importing seahorses from Australia, Brazil, Egypt, Indonesia, Kenya, Philippines, Singapore, Solomon Islands, Sri Lanka, the United States of America and Vietnam. Again, the numbers and sources differed slightly from the EC reporting.

vii) The Group notes that **Italy** and **Sweden** (as members of the EU) presumably also had import data on syngnathids that they did not submit, perhaps assuming that the EC would provide their information.

Table 4:Recorded imports of individual syngnathids by Belgium and Germany since 1997

	Belgium	**Germany**	
Year	Live	Live	Dead
1997		2,263	1
1998	445	6,399	24
1999	2,092	8,760	0
2000	1,438	6,576	3
2001 (until 13 June)		2,365	0
Total	**3,975**	**26,363**	**28**

New Zealand: Incidental syngnathid catches apparently totalled 42 kg in 1998, less than 1 kg in 1999, and 26 kg in 2000. The working group notes that these data were orders of magnitude lower than those in Ministry of Fisheries data provided to New Zealand's National Institute of Water and Atmospheric Research (NIWA) and to Project Seahorse.

South Africa: Permits are issued for import of live syngnathids.

Unites States of America: Different states vary in the specifics of their marine fish management. In a document sent to the Secretariat prior to CoP11 (Doc. 11.36), the Unites States of America surveyed 10 of its states along the Atlantic and Gulf of Mexico coasts, and reported that only Florida had any known commercial harvest of syngnathids, regulated take, and/or collected fisheries and trade data. No syngnathid research was reported in these states, but the working group is aware that some is underway.

Florida required a permit to collect and/or sell syngnathids, and maintained gear restrictions and a limit of 20 individuals per day. The main species landed in Florida are *Hippocampus zosterae* (dwarf seahorse), *H. erectus* (lined seahorse) and *Syngnathus pelagicus* (Sargassum pipefish), although a third seahorse (presumably *H. reidi*, the slender seahorse) was also landed. Most were apparently sold as curios. Table 6 in Doc. 11.36 showed comprehensive data for 1991-1995 but data for 1996-1998 suffered from a formatting problem.

Table 5:Florida syngnathid catch by species and value for 1991-1995. The working group infers that *Hippocampus sp* is *H. reidi*, the only other western Atlantic species. Source: Florida Fish and Wildlife Conservation Commission

Year	Species	Numbers	Values (USD)
1991	*S. pelagicus*	2 093	64 953
	H. zosterae	7 226	61 102
	H. erectus	6 850	15 116
	Hippocampus sp	4	400
	Total	**16 173**	
1992	*S. pelagicus*	1 788	81 438
	H. zosterae	76 706	46 109
	H. erectus	7 250	32 101
	Hippocampus sp	61	6 000
	Total	**85 805**	
1993	*S. pelagicus*	1 670	20 884
	H. zosterae	66 440	65 632
	H. erectus	1 900	84 548
	Hippocampus sp	3 475	12 000
	Total	**73 485**	
1994	*S. pelagicus*	1 419	11 358
	H. zosterae	98 779	69 079
	H. erectus	2 231	90 091
	Hippocampus sp	9 938	82 000
	Total	**112 367**	
1995	*S. pelagicus*	733	18 272
	H. zosterae	22 662	30 231
	H. erectus	598	57 828
	Hippocampus sp	81	45 000
	Total	**24 074**	

g) Conservation concerns and actions

Notification to the Parties No. 2001/023 requested information on:

f) Concern at national level about the conservation status of seahorses and other syngnathids. If any species is included in national lists of species of special conservation concern, please provide details of their conservation status and the reason for their inclusion.

Australia presented exhaustive excerpts from the national *Conservation overview and action plan for Australian threatened and potentially threatened marine and estuarine fishes*, prepared for Environment Australia by scientists from the New South Wales Fisheries Research Institute and the Australian Museum. It incorporated outputs from an expert technical workshop on threatened Australian marine fishes, held in September 1999.

A table showing the newly assessed species conservation status for Australia is presented in this report as Attachment C. The analysis listed four seahorse species (three of them new to science), five pipefishes, and both of the seadragons as Lower Risk in Australian waters: of these, three were considered to be conservation dependent, four were near threatened, and

four were of least concern. All other syngnathids are considered Data Deficient within Australia. The working group notes that these assessments will be submitted to the IUCN in order to facilitate Red List revisions. It also notes that the international conservation status of species found in Australian waters but with wider distributions (11 of the assessed species) may change when other populations outside Australia are incorporated into a global assessment.

The Australian report noted that there was currently little or no evidence for serious declines in syngnathid populations, but acknowledged a risk of increased exploitation as nearby Southeast Asian populations decline. The authors noted that the aquarium trade from Australia could also increase, indicated that monitoring of bycatch in Australian fisheries is essential, and encouraged the creation of adequate no-take Marine Protected Areas as the most reliable method of ensuring the survival of syngnathid populations.

Belgium: One Belgian learned society was collecting information on Belgian catches for Project Seahorse's data gathering efforts. A marine centre in Belgium had created a "Hippocampus Protection Fund" to launch an information campaign on syngnathids, and participated in captive rearing research.

Israel: Young captive-reared seahorses were released in 2000 into the Gulf of Eilat. The working group notes that release of captive-reared animals can also pose conservation problems to wild populations as a result of disease, behavioural disruption, and genetic mixing.

Romania: This Party noted that a reduction in suitable macrophyte habitat since 1970 may have led to a decline in this group of species. Romania also reported that young captive-reared seahorses were released in 1999-2000 into a marine reserve, as a re-population trial.

South Africa: Two severely endangered estuarine species were listed in the Red Data Book, *Hippocampus capensis* and *Syngnathus watermeyerii*, apparently because they were threatened by water extraction, habitat alteration and collection.

Ukraine: The response noted that, according to data from the Ukraine CITES Scientific Authority and evidence of local fishers, the numbers of Syngnathidae have declined sharply in the area of coastal cities, marine beaches and sites affected by chronic pollution. The Black Sea seahorse, *Hippocampus guttulatus microstephanus*, is included in the Red Data Book of the Ukraine as Vulnerable. Justifications are apparently the sharp decline in population numbers as a result of water pollution, disturbance of large marine areas, and their overexploitation for souvenirs.

h) National protection

Notification to the Parties No. 2001/023 requested information on:

> *g) National protection of seahorses and other syngnathids. If this group is protected at national level in any way, please provide details of the legislation and explain why they are protected.*

Australia: All syngnathids (seahorses, pipefishes, pipehorses, and seadragons) and solenostomids (ghost pipefishes) in Australia have become subject to export controls under the *Wildlife Protection (Regulation of Imports and Exports) Act 1982* since 1 January 1998. Any export of live or dried animals, or products derived there from requires a permit that will only be granted where the fish has been obtained from an approved captive-breeding operation or taken from the wild under an approved harvesting regime. As of 11 January 2002, this Act was incorporated into the *Environment Protection and Biodiversity Conservation Act 1999*, although

the current approvals will persist until their expiry date. Five permits are currently in force, across five states: three involve aquaculture, one for live trade, and one for use of trawl bycatch.

Australia provided considerable extra detail about its syngnathid management, certainly among the most exhaustive in the world at present. The general principles are that (a) an approved aquaculture venture, among other conditions, must be able to produce second generation offspring in a controlled environment, and that (b) an ecologically sustainable fishery must not lead to over-fishing or, if fishing an overexploited stock, must be fished in such a manner that recovery of the stock is highly probable. Most states in Australia also have specific protective legislation for all or particular syngnathids.

Israel: The entire family Syngnathidae has been proposed for a new list of protected species not yet approved by the Israeli parliament; this would give it full protection (against capture, killing, disturbance, retention, interference, and trade) as a pre-emptive measure against possible future exploitation.

New Zealand: Targeted commercial fishing for syngnathids would require a permit, which has never been granted.

South Africa: No syngnathid may be caught, disturbed or killed without a permit or exemption from the Minister.
Ukraine: The Black Sea seahorse, *Hippocampus guttulatus microstephanus*, may only be removed from the wild under special permission from the Ministry of Environment and Natural Resources, for scientific purposes.

i) Summary of information from the working group
This set of responses confirmed that very little is known about syngnathid biology, and that the taxonomy remains confusing. Diverse sources of expertise in related matters are available but few of the scientists involved are studying syngnathids. The lack of biological information will severely handicap decision-making with respect to fisheries and trade management.

Most respondents maintained some form of trade monitoring for at least some syngnathids. The working group notes that the data varied greatly in completeness and reliability, and warns that gaps will emerge when these data are cross-validated with other trade data in countries that did not respond to the Notification.
Only Australia had a management approach specifically for syngnathids, although four respondents reported documenting trade. Many Parties reported that some populations of syngnathids were currently protected *de facto* within no-take marine protected areas, although usually without specific management. Others were protected under fisheries guidelines requiring permits – which had not been granted - to retain bycatch.

Many countries alluded to a vague awareness that certain populations of syngnathids might be declining. But no country had comprehensive data on the population dynamics of any syngnathid species, so assessments remain vague.

Table 6: Information provided on syngnathid populations, fisheries, trade, conservation concern and legislation

0 = answered yes or (0) some / indirect / monitoring only. X = answered "no" or "not necessary". Blank = no answer

Party / Body	Population data	Fisheries data	Trade data	Conservation concern expressed	Domestic legislation
Australia			export	possible increases in trade	considerable
Belgium			most import		monitoring
Ecuador	X	X - bycatch	some		
European Union			most import		monitoring
Germany			most import		monitoring
Israel	X		X	pre-emptive	proposed
(Italy)	X				
New Zealand	(0) – citizens' watch group	0 – bycatch only	some	X	fisheries
Romania		X – bycatch only		possible declines	
Slovakia			X		
South Africa	(0) – for a few species, limited	X	X	some endangered species	permit needed
Sweden	X	X		X	X
Ukraine	X	X	X	sharp decline in seahorses	some permits
United States of America			for live in Florida		

Encouraging scientific research, and enhancing community participation

9. Decision 11.153 directs the Secretariat to:

d) encourage scientific research to promote the long-term conservation and sustainable use of seahorses and other syngnathids; and

e) explore ways to enhance the participation of fishermen, traders and consumers in the conservation and sustainable use of seahorses and other syngnathids.

The Secretariat consequently included both matters in Notification to the Parties 2001/034. No Party, however, was able to provide evidence of long-term research on syngnathids. Nor did any Party comment on engagement in activities to enhance community involvement in syngnathid conservation and management.

Attachment A: Source and volume for recorded seahorse imports into the European Union for 1997-2001

Rank	Source country	No. live	No. dead	Unspecified
1	Indonesia	21,999	0	
2	Sri Lanka	13,604	0	
3	Philippines	13,127	5,069 + 30 kg	20,000
4	Brazil	12,621	0	
5	Singapore	5,643	0	
6	USA	1,624	300	
7	Australia	823	0	
8	Egypt	750	0	
9	Italy	61	0	
10	Switzerland	50	8	
11	Cuba	46	0	
12	Malaysia	37	0	
13	Vietnam	20	217	
14	United Kingdom	10	0	
15	Hong Kong	7	0	
16	Kenya	3	0	
17	Solomon Islands	3	0	
18	Barbados	2	0	
19	Thailand	2	0	
20	Netherlands Antilles	1	0	
21	Costa Rica	1	0	
22	Bulgaria	0	2	
23	China	0	0 + 2 kg	200 boxes of dead specimens
24	Turkey	0	1	
	Unknown	276	1	
	TOTAL	**70,710**	**5,598 + 32 kg**	

Attachment B: Destination and volume for recorded seahorse imports into the European Union for 1997-2001

Rank	Destination country	Live	Dead	Unspecified
1	Germany	23,982	28	
2	Italy	14,747	5,214	
3	Netherlands	11,080		20,000
4	Austria	10,768		
5	United Kingdom	4,422	301 + 2 kg	200 boxes of dead specimens
6	Belgium	4,155		
7	Sweden	781		
8	Portugal	389		
9	Denmark	373		
10	Spain	13	55 + 30 kg	
	TOTAL	**70,710**	**5,598 + 32 kg**	