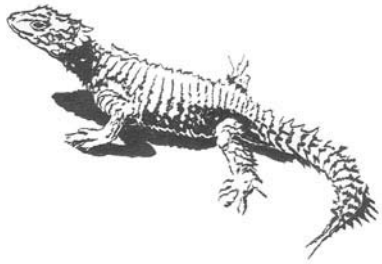
CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Twentieth meeting of the Animals Committee
Johannesburg (South Africa), 29 March-2 April 2004

SEAHORSES AND OTHER MEMBERS OF THE FAMILY SYNGNATHIDAE (DECISION 12.54) – REPORT OF THE WORKING GROUP

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

2. Decision 12.54, adopted at the 12th meeting of the Conference of the Parties and directed to the Animals Committee, states that:

> *The Animals Committee shall identify a minimum size limit for specimens of all* Hippocampus *species in trade as one component of an adaptive management plan, and as a simple precautionary means of making initial non-detriment findings in accordance with Article IV of the Convention.*

3. At the 19th meeting of the Animals Committee [(AC19) Geneva, Switzerland, 18 to 21 August 2002], the working group on seahorses and other members of the family Sygnathidae (WG) made a number of recommendations to the Animals Committee, all of which were accepted.

Minimum size limits

4. At AC19, the WG concluded that, in light of limited understanding of *Hippocampus* population dynamics and fishing mortality, a universal minimum size limit for all *Hippocampus* species (as suggested in document AC19 Doc. 16.2) offered the best tool to assist Parties in making non-detriment findings (NDFs) for *Hippocampus* exports. It suggested in document AC19 WG7 Doc. 1 that "the Animals Committee should recommend (at AC20) a universal minimum size limit for export of all *Hippocampus* that do not originate from approved aquaculture operations."

5. At AC19, the WG also noted that it would be helpful to have the results of further research available before recommending a precise minimum size limit, in order to incorporate all possible biological and trade knowledge. It felt that the 10 cm universal minimum size limit (height) proposed in document AC19 Doc. 16.2 was reasonable, but that it would prefer to review this proposed threshold at the present meeting, taking account of any further findings, in order to refine it if necessary. The WG recommended in document AC19 WG7 Doc. 1 that, "As a matter of urgency, Animals Committee should encourage Parties, IGOs, NGOs and trade sectors to offer financial and technical support for necessary research on size at maturity, maximum adult size, and size distributions in trade for all *Hippocampus*."

6. No funding has yet been forthcoming for the proposed further research on minimum size limits, although several applications are still under consideration. Given the absence of further funding, Project Seahorse undertook a preliminary meta-analysis of key life history parameters across other marine teleost fishes. The intention behind the proposed minimum size recommendation is to allow seahorses to reproduce before recruiting to the fishery. Project Seahorse thus extracted maximum length and size at first maturity for a wide array of marine teleost species from FishBase (www.fishbase.org), an internationally recognized resource for such information (Figure 1).

7. The new analysis by Project Seahorse confirmed that the proposed 10 cm universal minimum size limit (height) for *Hippocampus* could serve as a biologically appropriate means to make interim NDFs for seahorses, falling at or above the calculated maximum height at first maturity for 29 of the 33 *Hippocampus* species recognized by the Nomenclature Committee during its meeting of August 2003 (Figure 2). NDFs for the remaining species will need particular attention by range States. According to this new analysis, a 10 cm minimum height would also permit continued trade in 22 of the 33 species (Figure 2). The very limited trade in the 11 smaller species is currently either derived from captive-breeding facilities or largely domestic.

Mazatlán technical workshop

8. Project Seahorse shared its new analysis across teleost species with participants in the International Workshop on Seahorse Fishery Management in Mazatlán, Mexico, 3-5 February 2004. This workshop was hosted by Mexico and the United States of America, and coordinated by the International Fund for Animal Welfare. Its goal was to ensure sustainable trade in *Hippocampus* under the CITES Appendix-II listing. Participants included representatives from Parties to CITES, the Secretariat, non-governmental organizations, industry, academia, and a public aquarium. The agenda included the matters that had been suggested by the WG during its meeting at AC19.

9. Participants at the Mazatlán workshop endorsed the use of a universal minimum size limit as a means of making interim NDFs for *Hippocampus*. In the absence of other information, the participants tacitly accepted a minimum height of 10 cm for all species.

10. The Mazatlán workshop was both informed and productive. The outcomes of discussions at that meeting will be helpful to Parties wishing to:

    a) advance monitoring and assessment of *Hippocampus* populations, fisheries, bycatch and trade;

    b) evaluate the sustainability of aquaculture ventures for seahorses; and

    c) develop complementary means of making NDFs.

Trade height conversions

11. At AC19, the WG report had further recommended that, as noted in document AC19 Doc. 16.2, "the Animals Committee should develop conversion factors in order to set a universal minimum trade height that could be readily assessed by enforcement officers, as a surrogate for full *Hippocampus* height". It was expected that this research could be integrated with that outlined in paragraph 5 above.

12. In the absence of funding for *Hippocampus* trade research, no progress has yet been made on assessing the conversion factor needed to translate height into trade height, a measure that should be more easily used by enforcement officers.

Other matters originally addressed by the WG at AC19

13. At AC19, the WG recommended that the "Animals Committee should consider (at AC20) how best to address the export of patent or pre-packaged traditional medicine where it is manufactured in the country of origin;....". This matter was not raised at the Mazatlán workshop.

14. The Secretariat informed participants at the Mazatlán workshop that the World Customs Organization would not be developing harmonized codes for syngnathids, as invited in Decision 12.56.

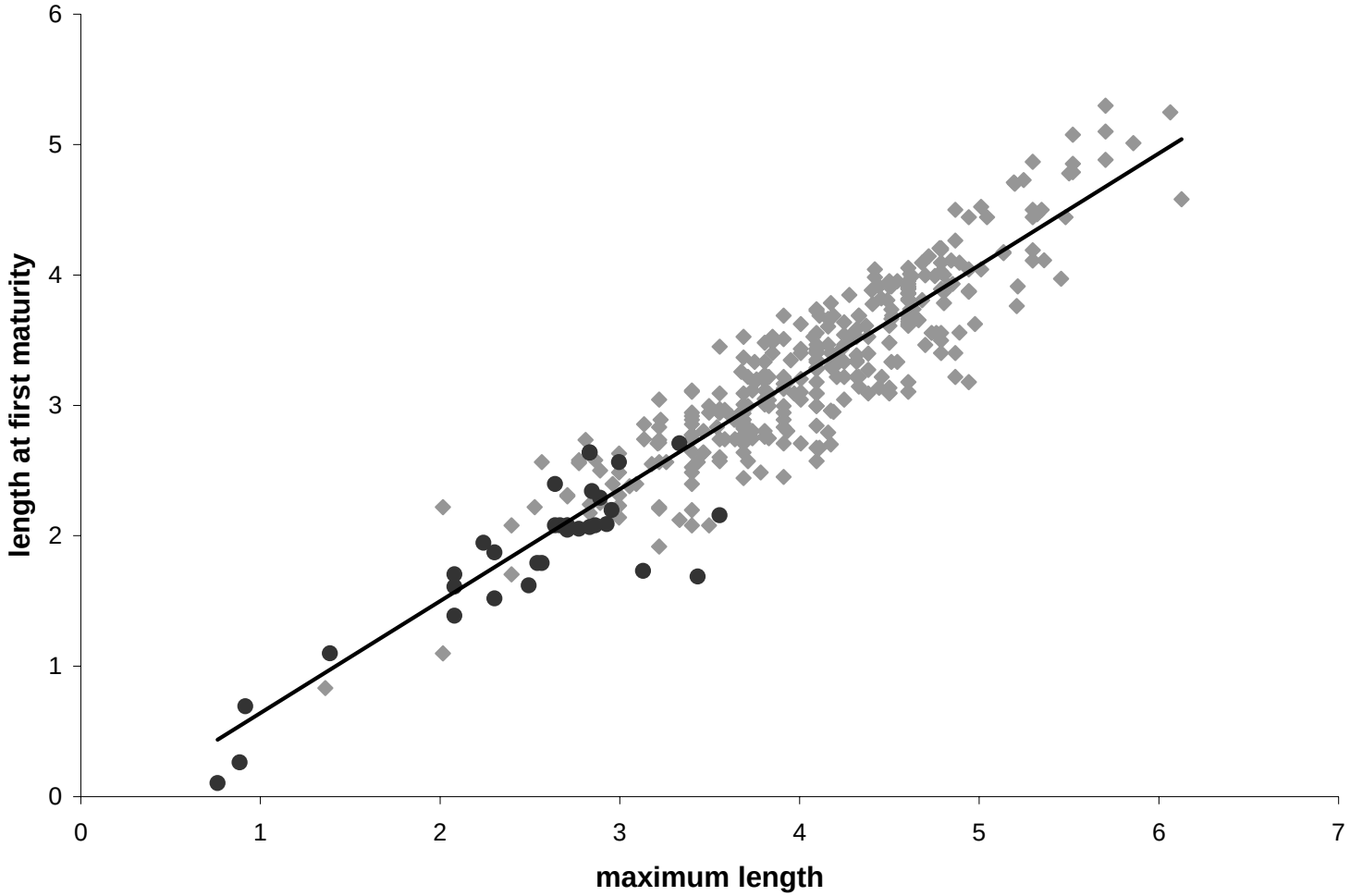


Figure 1

Length at onset of sexual maturity versus maximum adult length for 322 marine teleost species (diamonds, ♦) and 32 seahorse species (circles, ●) (no data available on height at first maturity for *H. minotaur*). Seahorses do not differ statistically from other marine teleosts in their relationship between size at first maturity and maximum adult size. Regression through all points: ln(length at first maturity, cm) = 0.86*ln(maximum length) - 0.22, $r^2 = 0.86$, $p < 0.001$.

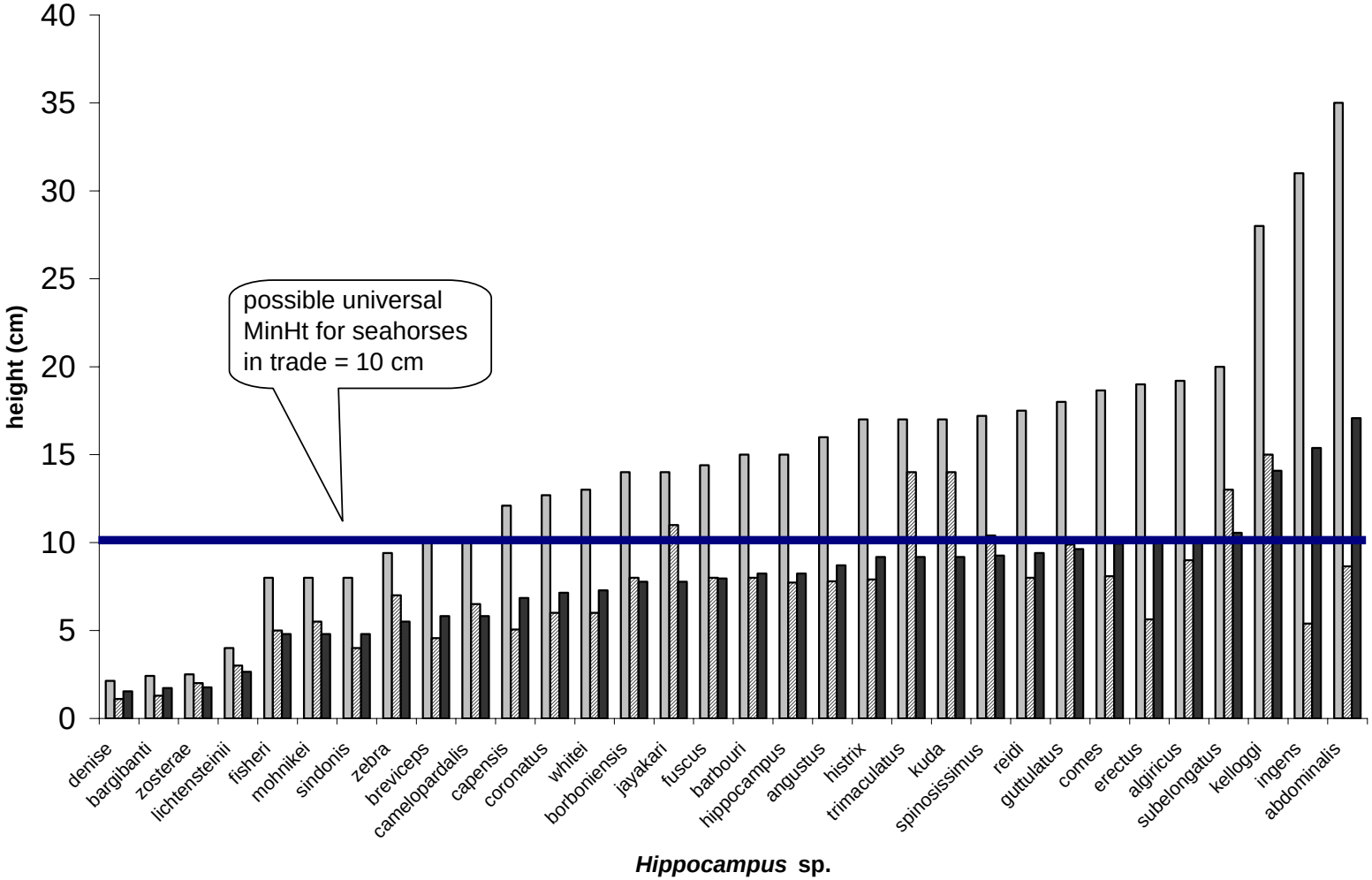


Figure 2

Maximum recorded height (grey bars), height at first maturity from literature (striped bars), and calculated height at first maturity (black bars) for 32 seahorse species (no data available on height at first maturity for *H. minotaur*). Calculated height at first maturity was determined using the regression equation in Figure 1. The horizontal line indicates a possible universal size limit (MinHt) of 10 cm for the exploitation and trade of seahorse species.