



SEAHORSE RESOURCES AND CONSERVATION IN CHINA

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At least 45 seahorse species have been described throughout the world so far, 17 species at present can be found along the China's coast, and most of them inhabiting the shallow seabeds in southern China (below latitude 26°N). Three spotted seahorses *Hippocampus trimaculatus* distributes throughout all the China's coast and is the most abundant species, followed by *H. kuda*, *H. histrix* and *H. mohnikei*. These species have been the main sources for the Chinese traditional medicine for many decades. The seahorses are frequently taken in as trawl bycatch and vulnerable to destruction and degradation of the habitats, leading to dramatic decline of the wild seahorse resources. Seahorse aquaculture has been developed in China since 1970's to meet the demand of the heavy trade and reduce the pressure on the overexploitation of the wild populations. During the last decade, the seahorse production has increased dramatically although still can not meet the market requirement.

We carried out the researches on the aquaculture, biology and conservation of the seahorses from 2003, and mainly focused on the aquaculture bottlenecks: the reproductive efficiency of parent seahorses and survivorship of the juveniles. To increase the reproductive efficiency, we have evaluated the gonad development, mating behavior, and the quality of the adult body condition through physiological, behavioral and chemical studies. In recent years, we started to study the physiological studies to disclose the further information about the seahorse reproduction. At 2014, we finished the seahorse genome project, and lots of novel genes about the seahorses have been found and some new mechanisms on seahorse growth, pregnancy have been evaluated. Our goals are to find some new and novel information about the seahorses so as to effectively protect the seahorse resources.

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