

## Chapter 20

# CONSERVATION BIOLOGY: ENDANGERED SPECIES AND ECOSYSTEMS

### IN THE NEWS

Seahorses are a group of 50 to 100 marine fishes that are highly adapted for living among seagrass beds, mangrove roots and coral reefs in shallow temperate and tropical waters. They occur between 50°N to 50°S latitude, with most species occurring in the Western Atlantic Ocean and Indo-Pacific region. Throughout most of this region they are under threat.

Many seahorse species are included on the IUCN Red List of Threatened Species. Because they live inshore in coastal regions, these intriguing fish are threatened by over-exploitation (for traditional medicines and aquarium display), accidental capture in fishing gear and habitat degradation. Their biology makes them particularly susceptible to over-fishing. They have a small brood size and the male broods the young for up to 4 weeks. Most species seem to be monogamous, so mate loss reduces reproduction when population densities are low. Sea horses tend to remain in the same location, so that depopulated areas may not be recolonized quickly.

Seahorses are a classic conservation issue. Very little is known about their biology and populations in the field, yet they are exploited for trade, particularly in Asia. The majority of landed seahorses go to traditional Chinese medicine and its derivatives, such as Japanese and Korean traditional medicines. Traditional Chinese medicine is recognized by the World Health Organization as a viable health care option, and has a global following. Seahorses are used to treat a range of conditions, including respiratory disorders, such as asthma, sexual dysfunctions and general lethargy and pain. Traditional Jamu medicine in Indonesia and folk medicine in the Philippines also make use of seahorses.



*Hippocampus kuda*—a tropical seahorse from northern Australia. (Photo courtesy of David Harasti.)