



The humphead wrasse – a threatened reef fish

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The humphead, Maori or Napoleon wrasse (to mention but a few of its many names²), *Cheilinus undulatus*, is the largest member of the family Labridae and is widely distributed across the reefs of the Indo-Pacific. It is particularly susceptible to overexploitation due to its life history, which involves late sexual maturity, long life and sex reversal. It appears to be highly vulnerable to overfishing wherever it is unmanaged, or where management is not enforced, and especially so where an export trade has developed. Despite its widespread distribution, the species is not particularly common. Indeed, as far as we can tell, it is becoming increasingly uncommon.

Historically, the humphead wrasse has been prized for its flavour and texture. Considered in some areas to be a stately fish, it is valued in many cultures where it was formerly used for special occasions, or only by high-ranking members of society. More recently, it has come to form an important part of the live reef food fish trade (LRFFT) in Southeast Asia, at times commanding over USD 100 per kg at retail — among the highest prices in the trade.

Traditionally this species was fished by hook-and-line gear, hand spear (more recently speargun using SCUBA), or trap, depending on fish size. Larger fish may sometimes be taken at night from their resting places where they are easy targets. To keep them alive for the LRFFT, cyanide is frequently used in some areas because it is not an easy fish to catch.

It is becoming clear from a range of studies, surveys and anecdotal accounts that the humphead wrasse cannot withstand anything other than light levels of fishing pressure (summarised in: The humphead wrasse *Cheilinus undulatus*, Ruppell 1835: synopsis of a threatened and poorly known species. Y. Sadovy et al., unpubl. ms).

The humphead wrasse appears to be threatened wherever an export LRRFT market has developed,

where night fishing on SCUBA is unchecked, where significant local fisheries are unmanaged, or where management is not enforced. Annual landings for local use in source countries rarely exceed about 10 t while a minimum volume for the export LRFFT between 1997 and 2000 was between 78 and 132 t a year. These figures are Hong Kong import estimates for this species and Hong Kong is probably its major importer.

Despite such low volumes for a commercially important food fish, over the last few years live fish traders have found it increasingly difficult to find adults. The majority of individuals now in the Hong Kong retail sector are less than 60 cm total length, most of them juveniles. Thus, trade in this species is currently largely one of juveniles, a pattern that will doubtless exacerbate the threatened status of this species. The humphead wrasse cannot yet be hatchery-reared, despite claims to the contrary, and all fish in the trade are wild-caught.

Due to documented declines, the humphead wrasse is listed as vulnerable on IUCN's Red List of Threatened Species and is variously banned from export from several countries. However, there is no regional management plan for this species and overfishing (even where the species is protected by law) and illegal export (especially from Indonesia) evidently continue. The status of this species as a luxury food means that its market value is likely to increase as it becomes less available, thereby encouraging continued exploitation even as populations decline.

Because of widespread concern over the status of the humphead wrasse the IUCN Grouper/Wrasse Specialist Group is launching an awareness campaign using funding from the Brookfield Zoo (Illinois, USA) and the University of Hong Kong. If you would like to receive one of our information packets on this species, or know of others who might, please contact me.



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2. Other names include: ramkop-lipvis, variivoce, mem, namen, man, dagava, pian-pokon, podar-takai, mameng, so mei, maml, and many more.