Turban shells (gugumbal) are one of the main food items harvested from rocky intertidal shores in northern New South Wales. This practice has a long history with the Garby Elders with large numbers of shell fragments and intact opercula (trap-doors, cats’ eyes) found in shell middens. Three main species of turban snail can be found on rocky shores in the region; *Turbo undulatus*, *Turbo militaris*, and *Turbo torquatus*. Other species from the same scientific family are also present (e.g. the tent shell *Astralium tentoriformis*) but there is no evidence that these were harvested. Each of the three species of turban snail may be easily distinguished by its shell and operculum features.

**Turbo militaris**

*Turbo militaris* is the most common species on rocky shores and subtidal reefs in the area, making it the primary target of local harvesting activities. The shell is high spired, growing up to 120mm in height, and is often ornamented with one or two rows of spines. The operculum is smooth and slightly domed. Large numbers of this species can be found under rock overhangs, and within cracks and crevices around the low tide mark. *Turbo militaris* can be found from Alexandra Head, in southern Queensland, to Wollongong, New South Wales.

**Turbo torquatus**

*Turbo torquatus* is distinguished by its flat shape. It has prominent ridges on the shell, and grows up to 110mm in height. The operculum is very distinct, with spiral ridges. *Turbo torquatus* is considered by the Garby Elders to be better eating than the other large gugumbal, *Turbo militaris*. This species is less commonly found in the intertidal region, reaching its highest abundance on shallow reefs.

**Turbo undulatus**

*Turbo undulatus* is the smallest of the three species, growing up to 50mm in height. It can be found in large numbers around the mid-tide mark on most shores. This species

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*Photo*

A specimen of *Turbo militaris* from Diggers Camp. This species is the largest and most common on local shores.

*Did you know?*

The importance of *Turbo torquatus*, both culturally and as a food item, is reflected by the fact that an image of the species is used as an emblem of the Yarrawarra Aboriginal Corporation.
has a greenish shell with shallow ridges. The operculum is smooth with a centrally located callus (hump). Known as ‘warrener’ in the south, where it is harvested both commercially and recreationally, it can be found from New South Wales, to southern Western Australia and Tasmania.

### Cooking and Eating Gugumbal

The *gugumbal* animal is coil-shaped with the gonad, which is dark green in females and pinkish-white or creamy brown in males, located at the top of the coil. The foot, which is the edible part of the animal, is the large creamy-white coloured muscle at the very bottom of the body.

*Gugumbal* can be prepared and cooked in a variety of ways. Perhaps the simplest method is to place the *gugumbal* directly onto the hot ashes of a fire, with the opening facing upwards. The animal then cooks in its own juices and is removed from the fire when the juices stop boiling.

If the *gugumbal* is immersed in freshwater for half a day, the animal releases the sand within its shell and can then be boiled in a billy over a fire. When the operculum becomes loose, a fork is inserted into the meat to remove the animal from its shell. The meat can also be minced and combined with potato and onion to make *gugumbal* patties, or even cut into small pieces and seasoned.

**Please note** that NSW Department of Primary Industries bag limits apply for collection of Turban snails.

Photos: Adam Davey; David Elkins; Kathryn James; Steve Smith.