

not appear on one film appeared on later shots of the same animal. If tags are not observed in the animal during the first "take" a second or third shot of the animal should be made.

## References

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## Queensland's beche-de-mer fishery

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Interest in the commercial harvesting of beche-de-mer species for food and medicinal purposes was renewed several years ago. Harvesting commenced along the East Coast of Queensland as well as in the Torres Strait.

For management purposes the East Coast and Torres Strait are considered as separate entities, although jurisdiction for commercial harvesting of beche-de-mer lies within the Queensland Department of Primary Industries which administers the Queensland Fisheries Act. The following Table contrasts the management methods currently operating for the two harvesting areas.

East Coast	Torres Strait
Permit to individual	Permit to Island Community Council
Industry quota	-
Individual quota	-
Limit of 10 divers	-
Collection only from areas covered by water at low tide	-
Quarterly returns	Quarterly returns
No species restrictions	No species restrictions
No size limits	No size limits
Collection by hand only	Collection by hand only

The present annual industry quota for the East Coast is 500 t (wet weight). Individual quotas allocated are between 15 and 75 t. Additional quota may be requested during the tenure of the permit. Additional allocation is made on the basis of total reported industry collection at time of application for quota increase. All permits are tenured for 12 months and for the fiscal year (July to June). Repeat

permits may be granted, subject to satisfactory performance criteria. The maximum annual industry catch reported to date is 130 t.

There are difficulties with the processing of beche-de-mer, particularly in areas away from the larger coastal centres. Export standards for beche-de-mer are set by the Australian Department of Primary Industry and Energy, Exports Section. A joint project between the industry and the Queensland Department of Primary Industries is exploring methods of processing to satisfy export standards. The Northern Territory, which has also recently re-established a beche-de-mer fishery, will participate in this project. It will assess processing techniques and determine specific composition (e.g. amino acids, etc.) and storage methods. Possible interaction with FAO is being explored. Thirteen species are to be analysed. The six of major commercial potential are *Holothuria scabra*, *H. atra*, *H. nobilis*, *H. fuscogilva*, *H. echinites* and *Thelenota ananas*.

The beche-de-mer fishery is relatively small. Little information is available on stock size or specific distribution and the conservative management reflects this low level of knowledge. The only other pressure on beche-de-mer stocks is from the marine aquarium trade which has a high demand for the more colourful species\*. There has also been interest recently in the use of powdered beche-de-mer as a slow-release fertilizer for use by the plant nursery trade.

Note from the editor: most of the species have toxins and holothurians generally bring about mortality of other aquarium fauna.