January 1990 SPC Bêche-de-i

SPC Bêche-de-mer Information Bulletin #1

Ito, K. 1984. Annual Report, Fisheries Section, North Solomons Division of Primary Industry, mimeo pag.var.

Ito, K. & Selemet. 1985. Annual Report, Fisheries Section, North Solomons, Division of Primary Industry, mimeo, pag. var.

Beche-de-mer recovery rates

Recovery rates (ie the percentage of dried product obtained from a given amount of fresh material) for beche-de-mer have been estimated by several researchers over the last few years. Some recent drying experiments were carried out by Veikila Vuki and Filipe Viala, both formerly of the Fiji Fisheries Division in Suva. A report on these trials will be presented in a forthcoming SPC publication. Below is a summary of results from this and previous studies by other workers, expressed as weight and length retained by specimens after processing.

Lock, J.M. & D.C. Waites. 1985. Papua New Guinea

Wankowski, J.W.J. 1979. Subsistence fishing on Nuguria,

Nukumanu and Takuu atolls. Harvest 5 (3), 179-185.

Primary Industry, Port Moresby, 102p.

Fisheries Bibliography., Tech. Rep. 85/3, Dept of

| Species | English name | % weight retained | % length retained | Reference (see below) |
|--------------------------|----------------------|-------------------|----------------------|--------------------------|
| Actinopyga mauritiana | Surf red fish | 6.7 | 44 | 1 |
| Actinopyga mauritiana | Surf red fish | 4.9 | 46 | 5 |
| Actinopyga miliaris | Black fish | 5.6* | | 2 |
| Actinopyga miliaris | Black fish | 9.7 | 52 | 5 |
| Actinopyga echinites | Deepwater red fish | 3.0 | | 3 |
| Actinopyga echinites | Deepwater red fish | 11.2 | 47 | 4 |
| Holothuria atra | Lolly fish | 2.6 | | 2 |
| Holothuria atra | Lolly fish | 7.7 | 48 | 5 |
| Holothuria fuscogilva | White teat fish | 7.6 | 51 | 4 |
| Holothuria fuscogilva | White teat fish | 9.8 | 53 | 5 |
| Holothuria fuscopunctata | Elephants trunk fish | 9.3 | 50 | 5 |
| Holothuria nobilis | Black teatfish | 8.7 | | 2 |
| Holothuria nobilis | Black teatfish | 9.8 | 44 | 4 |
| Holothuria nobilis | Black teatfish | 8.1 | 55 | 5 |
| Holothuria scabra | Sandfish | 5.0 | | 3 |
| Thelenota ananas | Prickly red fish | 3.0 | | 2 |
| Thelenota ananas | Prickly red fish | 4.6 | 38 | 4 |
| Thelenota ananas | Prickly red fish | 5.6 | 36 | 5 |
| Stichopus chloronotus | Green fish | 2.7 | 32 | 5 |
| Stichopus variegatus | Curry fish | 3.9 | 34 | 5 |

* Recalculated from original data





Live weight Body weight Boiled weight Dried weight

Weight loss during processing of four beche-demer species. Based on Harriott (1984) and Conand (1979) There is a fair degree of consistency among the results, especially considering the variations in experimental methodology used by the different researchers. Few, if any, species will yield more that 10% of their original weight as dried product, and some, such as *Stichopus chloronotus*, may yield as little as 3%. Some of the largest species, such as *Thelenota ananas* (prickly red fish) undergo the greatest weight loss. For most beche-de-mer species, shrinkage is relatively consistent, with the length of the dried product being between 30 and 50% of the live length. Dried length of the finished product is probably consistent enough in relation to live animal size to serve as a basis for size limits in cases where this form of management is considered desirable.

> Garry Preston Senior Inshore Fisheries Scientist South Pacific Commission