

# Trade patterns of beche-de-mer at the global hub for trade and consumption – an update for Hong Kong

To A.W.L.<sup>1</sup>, Shea S.K.H.<sup>2</sup> and Chantal Conand<sup>3</sup>

Hong Kong is considered to be the main hub for the trade and consumption of beche-de-mer (To and Shea 2012). Locally observed patterns in supply countries/territories, volumes and re-export trades reflect the global trade pattern of this seafood commodity, which is highly valued among Asian communities (Eriksson and Clarke 2015; Fabinyi 2012; Conand 2017). It is the intention of this review to focus on beche-de-mer recorded under two specific commodity codes, 'dried, salted or in brine' (code: 03081990) (hereafter, 'dried') and 'frozen' (code: 03081910), as explained in a later section.

The local whole sale markets are illustrated Figures 1 and 2. The retail markets offer diverse packaging of dried or frozen product (Figures 3, 4 and 5).

## Trade patterns from 1996–2011

An earlier review of the trade patterns of dried beche-de-mer in Hong Kong, based on 16 years of statistics from 1996 to 2011, revealed that five supply countries – including Indonesia, the Philippines, Papua New Guinea, Fiji and Japan – accounted for more than 50% of all dried beche-de-mer imported into Hong Kong, and that since 2004 Vietnam has taken over the role of mainland China to become the largest re-export destination of dried beche-de-mer from Hong Kong (To and Shea 2012).

The review did not look at the trade patterns of frozen beche-de-mer, as trade statistics for the product were merged with that of other frozen molluscs and aquatic invertebrates in the records at the time, nor did the review provide figures on transportation modes for the import and re-export of beche-de-mer into and from Hong Kong (To and Shea 2012).

## Change in commodity codes in 2012

Notably, in 2012 the statistics for beche-de-mer trade in Hong Kong, which are extracted from the database of the Census and Statistics Department of the Government of Hong Kong SAR, have undergone major modifications. These include modifications to the commodity code for dried beche-de-mer, and the addition of a specific commodity code for frozen beche-de-mer (Conand et al. 2014). Specific commodity codes for sea cucumbers include three other codes: 'live, for cultivation', 'live, not for cultivation' and in 'prepared or preserved' forms (Conand et al. 2014).

## Trade partners – dried and frozen beche-de-mer from 2012–2016

From 2012 to 2016, 119 and 48 countries/territories reportedly supplied dried and frozen beche-de-mer to Hong Kong respectively. Compared with To and Shea's (2012) study, the top five dried beche-de-mer origins have remained largely the same. The only exception is Papua New Guinea, which now falls outside the top ten (Table 1). This decline in imports from Papua New Guinea may be the result of the country's national closure of sea cucumber fisheries since 2009 (Carleton et al. 2013). Furthermore, while the above-listed top five origins used to make up about 51.5% of the total trade volume (To and Shea 2012), their contribution has dropped to about 40.7% in the 2012–2016 period.

Since the emergence of the commodity code for frozen beche-de-mer in 2012 and up until 2016, the top five origins have contributed 72.7% of total recorded frozen beche-de-mer imports to Hong Kong.

Notably, only one country, Japan, is reportedly in the top five lists for both dried and frozen beche-de-mer. The USA and Mexico, which are both in the top five for frozen beche-de-mer imports into Hong Kong, are also the 6<sup>th</sup> and 7<sup>th</sup> largest supply countries of dried beche-de-mer to Hong Kong, contributing to about 4.9% and 4.6% of total recorded import quantity, respectively. Other than these three countries, overlapping between dried and frozen beche-de-mer supply countries/territories appears limited.

<sup>1</sup> WWF-Hong Kong, 15/E, Manhattan Centre, 8 Kwai Cheong Road, Hong Kong

<sup>2</sup> BLOOM Association, Suite 2405, 9 Queen's Road, Hong Kong

<sup>3</sup> Laboratoire d'Écologie Marine (Ecomar), La Réunion University, and MNHN, Paris, France



#### Figures:

1. In wholesale markets, sea cucumbers are typically displayed openly and in bulk (Photo: Stan Shea/BLOOM).
2. Large quantities of sea cucumber may be found drying in the sun on the streets (Photo: Kathleen Ho/BLOOM).
3. Frozen sea cucumbers from South America sold in local supermarkets (Photo: Kathleen Ho/BLOOM)
4. Spiky sea cucumbers from Japan, one of the most expensive dried beche-de-mer in the retail market in Hong Kong (Photo: Allen To).
5. Dried sea cucumbers packaged and for sale in retail markets (Photo: Kathleen Ho/BLOOM).



For re-export destinations, Vietnam was found to dominate in both dried and frozen beche-de-mer trades in To and Shea's (2012) study, and this has remained unchanged in the current study period from 2012 to 2016. It is worth mentioning that one reason for such an exceptionally high percentage

of beche-de-mer products destined for Vietnam is reportedly the accessibility of smuggling routes at the border of Vietnam and mainland China, in order to circumvent tax and food safety inspections (WenWeiPo 2016; The Paper 2014).

**Table 1.** Top five import and re-export countries of dried and frozen beche-de-mer into and from Hong Kong respectively and the percentage contribution within each of these product types, 2012–2016.

Dried				Frozen			
Import	%	Re-export	%	Import	%	Re-export	%
Japan	11.5	Vietnam	95.7	Canada	17.7	Vietnam	77.8
Indonesia	10.4	Taiwan	1.5	China	17.5	China	12.3
Fiji	7.2	S Korea	0.7	Japan	13.2	Taiwan	7.6
Madagascar	5.6	Singapore	0.4	USA.	13.0	Macau	0.8
Philippines	6.0	Canada	0.3	Mexico	11.2	U.S.A.	0.5

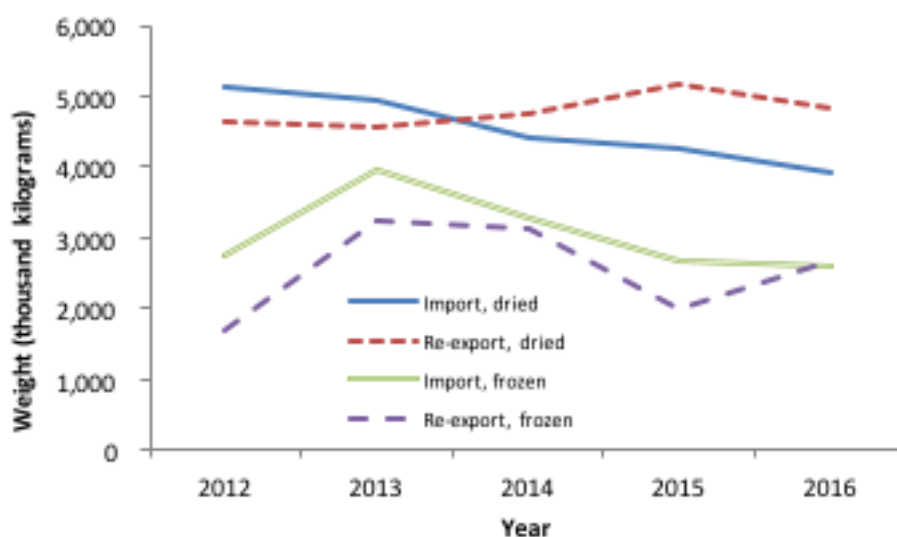
### Trade quantities and transportation modes – dried and frozen beche-de-mer from 2012–2016

The annual import quantity of dried beche-de-mer has been declining since 2012, and the trend became obvious starting from 2013 (Figure 6). Such decline is also recorded for frozen beche-de-mer, starting from 2013. Nonetheless it is worth noting that from 2012 to 2016, beche-de-mer imported into Hong Kong under frozen and dried forms contributed 97.8% of the total weight reported under all five commodity codes for sea cucumbers/beche-de-mer listed above. For dried and frozen beche-de-mer, the reported value in 2016 was about HKD 2.3 billion ( $\approx$  USD 294 million).

Interestingly, for dried beche-de-mer, the import quantity was documented to be larger than the re-export quantity from 1996 to 2011 (To and Shea 2012); however, starting from 2014, the reverse

became true. Although stockpiling has been documented for some dried seafood products (Clarke 2002), it is unreasonable to assume stockpiling of such large amounts in local markets where cost of storage space rental can be high. This observed abnormality thereby warrants further in-depth examination.

Ocean transport was found to be relatively more important than other transportation modes for the import of both dried and frozen beche-de-mer into Hong Kong (Table 2). Although transportation by air made up only about 40% of the imports, such level of use on air transport has already exceeded the level used by other high value dried seafood products, such as shark-fin related products. The great majority of shark-fin related products arrive in Hong Kong via ocean (Shea and To 2017). In the re-export trade, ocean transport was also found to be more important than air transport for the re-export of beche-de-mer.

**Figure 6.** Import and re-export quantity (weight, in tonnes) of dried and frozen beche-de-mer.

**Table 2.** Transportation modes of dried and frozen beche-de-mer imports and re-exports by quantity in Hong Kong in 2016.

Transportation mode	Dried		Frozen	
	% import	% re-export	% import	% re-export
Air	42.1	1.1	38.1	<0.1
Land	0.1	<0.1	0.4	0
Others	<0.1	0.2	0	0.5
Sea	57.8	98.7	61.5	99.5

## References

- Carleton C., Hambrey J., Govan H., Medley P. and Kinch J. 2013. Effective management of sea cucumber fisheries and the beche-de-mer trade in Melanesia. *SPC Fisheries Newsletter* 140:24–42
- Clarke S. 2002. Trade in Asian dried seafood: characterization, estimation and implications for conservation. *WCS Working Paper No. 22*, December 2002. USA: Wildlife Conservation Society.
- Conand C. 2017. Expansion of global sea cucumber fisheries buoys exports. *Revista de Biología Tropical* 65:1–10.
- Conand C., Shea S. and To A. 2014. Beche-de-mer trade statistics for Hong Kong in 2012. *SPC Beche-de-mer Information Bulletin* 34:43–45.
- Eriksson H. and Clarke S. 2015. Chinese market responses to overexploitation of sharks and sea cucumers. *Biological Conservation* 184:163–173.
- Fabinyi M. 2012. Historical, cultural and social perspectives on luxury seafood consumption in China. *Environmental Conservation* 39(1):83–92.
- Shea K.H. and To A.W.L. 2017. From boat to bowl: Patterns and dynamics of shark fin trade in Hong Kong – implications for monitoring and management. *Marine Policy* 81:330–339.
- The Paper. 2014. 中国的西澳海鲜进口额仅为越南1/3, 只因走私泛滥? [Chinese only]. [http://www.thepaper.cn/newsDetail\\_forward\\_1265551](http://www.thepaper.cn/newsDetail_forward_1265551). Accessed 6 March 2018.
- To A.W.L. and Shea S.K.H. 2012. Pattern and dynamics of beche-de-mer trade in Hong Kong and mainland China: implications for monitoring and management. *TRAFFIC Bulletin* 24:65–76.
- WenWeiPo. 2016. 2.3億日本「輻射海鮮」走私到中國 [Chinese only]. <http://news.wenweipo.com/2016/08/22/IN1608220014.htm>. Accessed 6 March 2018.