2021 Sector Sustainability Update

Sustainable Fisheries PARTNERSHIP

SWIMMING CRAB

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July 2022

SWIMMING CRAB

2021 Sector Sustainability Update

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KEYWORDS

Target 75, certification, sustainability, seafood sectors, MSC, fishery improvement projects (FIPs), small-scale fisheries

PREFERRED CITATION

SFP. 2022. Swimming Crab: 2021 Sector Sustainability Update. Sustainable Fisheries Partnership (SFP). July 2022. 17 pp.

SUMMARY

Production and trade

- **Swimming crab** is a valuable fishery resource, with high commercial value and demand in the major international markets.
- Production in **2019 was estimated at about 600,000 tonnes globally,** mostly coming from wild production.
- **Asia** accounts for **85 percent** of production. **China and Indonesia** remain the **top producing countries**, representing **more than 50 percent** of global production, with 317,000 tonnes produced in 2019.
- **Ten countries** represent almost all production (**97.5 percent**).
- Almost **half of swimming crab production** is dominated by **blue swimming crab** (*Portunus pelagicus*).
- Swimming crab trade (exports) totaled more than USD 4 billion by value in 2019. **China and Indonesia** represented **23 percent** of the reported swimming crab exports by value in 2019. **China and the United States** remain the **most important importers**, together accounting for **51 percent** of swimming crab imports by value in 2019.

T75 status and current strategy priorities

- **35.6 percent** (185,000 tonnes) of global swimming crab production is currently estimated to be either **sustainable** or **improving**.
- SFP's strategy in the sector primarily focuses on the blue swimming crab (BSC) fishery in Indonesia and the Philippines and supports efforts to improve catch sector engagement, foster co-management approaches and governance systems, implement measures to ensure a legal supply chain (control document and audit system), and advance data-collection programs to support improved stock assessments and development of appropriate management measures.
- The major sustainability issues in the fishery globally include lack of catch sector engagement and formalization, IUU risks, and inadequate governance and data-collection systems to inform management.

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Cooked male and female swimming crab © SFP

THE TARGET 75 INITIATIVE

Sustainable Fisheries Partnership (SFP) applies a sectoral approach to its mission of making actionable information available to the seafood supply chain, in order to leverage market forces to achieve improvements in fisheries. Seafood sectors may be defined in terms of the shared biological characteristics of harvested species, as well as their role in defined markets.

In 2017, SFP launched the Target 75 (T75) initiative, as a dedicated and concrete benchmark on the way to our ultimate goal of 100-percent sustainable seafood. **T75 aims to ensure that 75 percent of seafood (by volume) in 13 key sectors is either sustainable or making regular, verifiable improvements**. Together, these T75 sectors cover most of the main types of seafood consumed in North America and Europe, and a significant portion of what is consumed in Japan and Oceania.

1 SWIMMING CRAB SECTOR

This sector comprises all sources **of blue swimming crab (*Portunus pelagicus*)** and crab species that can substitute for blue swimming crab in the market, i.e., blue crab (*Callinectes sapidus*), Central American swimming crab species (*Callinectes spp.*), red spot swimming crab (*Portunus sanguiolentus*), and red swimming crab (*Portunus haanii*).

The most relevant species by production volume is blue swimming crab, which represents almost half of the global production for this sector.

More than half of swimming crab production comes from China and Indonesia. The majority of the production of this sector is exported into markets in China and the United States.

More information on the definition and scope of this and other Target 75 sectors is available here.

Blue swimming crab entangled in net, Indonesia. © SFP

2 SCOPE AND OBJECTIVES

This report provides a quick summary update on progress so far for the swimming crab sector against the 75-percent goal, in terms of volume of production that is already considered either sustainable or improving. The update also includes highlights on which sources of production had the most relevant changes, as well as the most recent trends in production and trade.

For the purposes of this analysis, we define a fishery as "sustainable" if it is Marine Stewardship Council (MSC)-certified or green-listed in SFP's Metrics tool. We define a fishery as "improving" if it is certified by one of the following programs: MarinTrust, ASMI RFM, Iceland Responsible Fisheries, Fair Trade USA; if it is under full assessment in the MSC program; or if it is in a fishery improvement project (FIP) that is making good progress (i.e., with a progress rating of A, B, or C, or formed within the last 12 months but still unrated), using SFP's FIP Evaluation Tool. We define farmed production as improving if it is certified by one of the following programs: Aquaculture Stewardship Council (ASC), Best Aquaculture Practices (BAP), GlobalG.A.P's GCN; or if it is in a formal aquaculture improvement project (AIP).

Data on production refers to 2019 production and is from the FAO FishStatJ database. Status in terms of certifications and fishery, and FIPs and AIPs refers to September 2021.

Processing facility, Indonesia © Amber Von Harten/SFP

Small-scale crabbing boats, Indonesia © SFP

3 PRODUCTION

Swimming crab is an important seafood sector, mainly for small-scale fisheries, with average global production of about 650,000 tonnes per year in the last five years (FAO 2021a). These values are overestimated since China, India, Vietnam, and Sri Lanka also report landings aggregated as "Marine crabs nei," which could include both swimming crab and other warmwater crab species not considered in this sector. The highest value of production was reported in 2017 (about 680,000 tonnes). This sector also has one of the fastest growing levels of production, with a 26-percent increase since 2010. Aquaculture production for this sector is almost nonexistent or unreported (**Figure 1**). Asia currently contributes nearly 85 percent (c. 536,000 tonnes) of the swimming crab produced worldwide (**Figure 2**), followed by the Americas.

China and Indonesia continue to be the largest producing countries (26 and 24 percent of total sector production, respectively), exclusively with wild production. These two countries, together with eight other countries (India, Vietnam, the United States, Mexico, Thailand, Sri Lanka, the Philippines, and Venezuela), represent almost the totality of global production (97.5 percent) (**Figure 3**) (FAO 2021a). Blue swimming crab (*Portunus pelagicus*) is the most important species, accounting for nearly half of swimming crab production. Blue crab (*Callinectes sapidus*) is also an important species (10.5 percent of the total catches). Nearly 40 percent of the total capture is still poorly reported, with crab identified only in broader categories such as "Marine crabs" or "Marine crustaceans nei" (**Appendix I**).

Figure 1 | Time series of swimming crab production (area) and annual exports (bars)

Figure 2 | 2019 Swimming crab production by continent

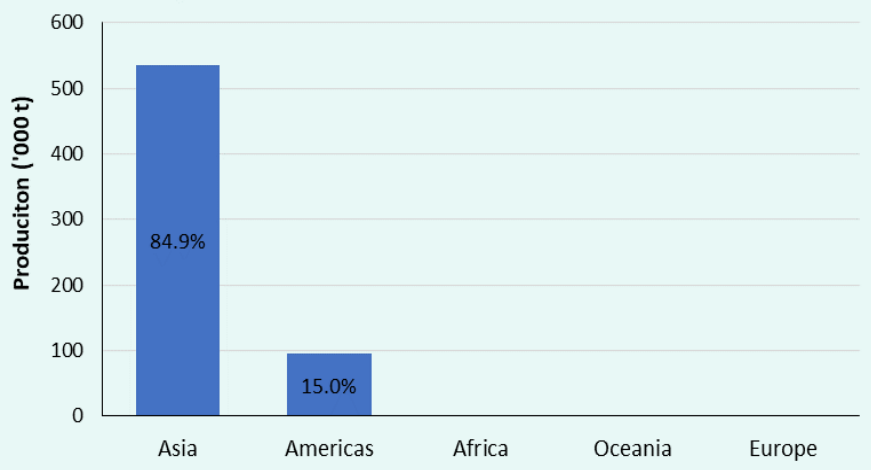
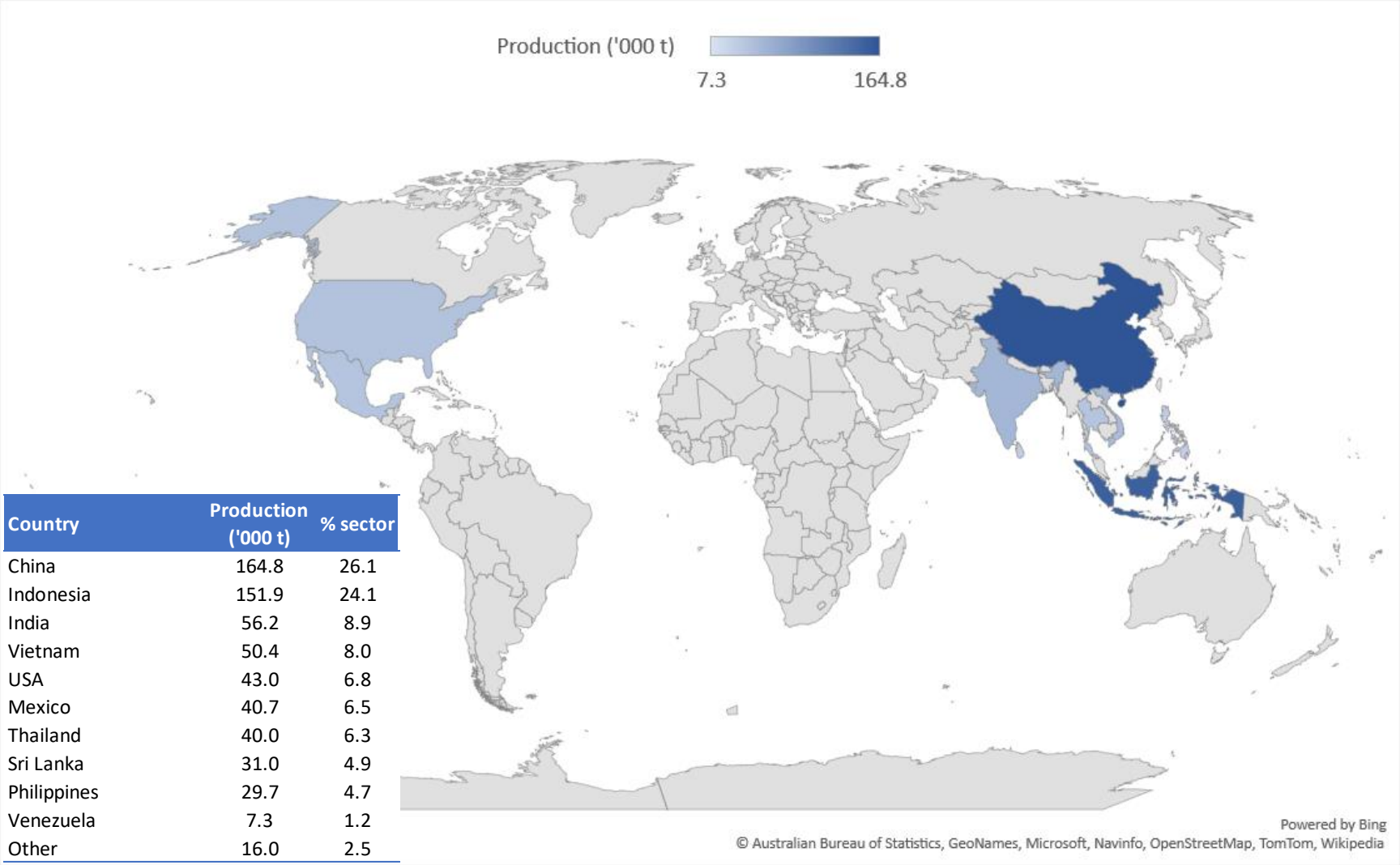


Figure 3 | The top 10 swimming crab producing countries



Country	Production ('000 t)	% sector
China	164.8	26.1
Indonesia	151.9	24.1
India	56.2	8.9
Vietnam	50.4	8.0
USA	43.0	6.8
Mexico	40.7	6.5
Thailand	40.0	6.3
Sri Lanka	31.0	4.9
Philippines	29.7	4.7
Venezuela	7.3	1.2
Other	16.0	2.5

Source: FAO FishStatJ

4 TRADE STATISTICS

Swimming crab remains an economically important seafood commodity globally. Although export data is only available aggregated for "Crab unspecified," the annual value has been increasing, reaching more than USD 4 billion in recent years (FAO 2021b). In the past decade, annual global crab trade more than doubled (**Figure 1**) (FAO 2021b).

China accounted for 14 percent of the reported swimming crab exports by value in 2019, followed by Indonesia (9 percent). However, the ten top swimming crab exporters represent only about 40 percent of the total analyzed crab exports, with a wide range of countries reporting crab trade (**Table 1**). This may be related to the fact that swimming crab trade is reported to broader commodity groups, which may include other temperate and warmwater crab species.

Indonesia and Bangladesh presented the largest growth in swimming crab production since 2010, with about a 3-percent increase in market share each. In contrast, China had the most significant decrease (-9 percent) in market share since 2010 (FAO 2021b).

China and the United States continue to be the largest importers for swimming crab, together representing 51 percent of the total imports. (**Table 1**) (FAO 2021b). South Korea, Europe, and Japan are also important end markets for swimming crab.

Bilateral trade flows from the main swimming crab exporters follow this same pattern, with China and the United States as the key top importers for this commodity (**Table 1**).

China has seen the largest growth in terms of imports by value, with a 15-percent increase in market share between 2010 and 2019. In contrast, the United States and Japan showed 11- and 7-percent market share losses, respectively, in the last decade (FAO 2021b).

Table 1 | Main swimming crab exporters in 2019 and their top trade partners, by percentage of each country's total exports

Source: FAO 2021c

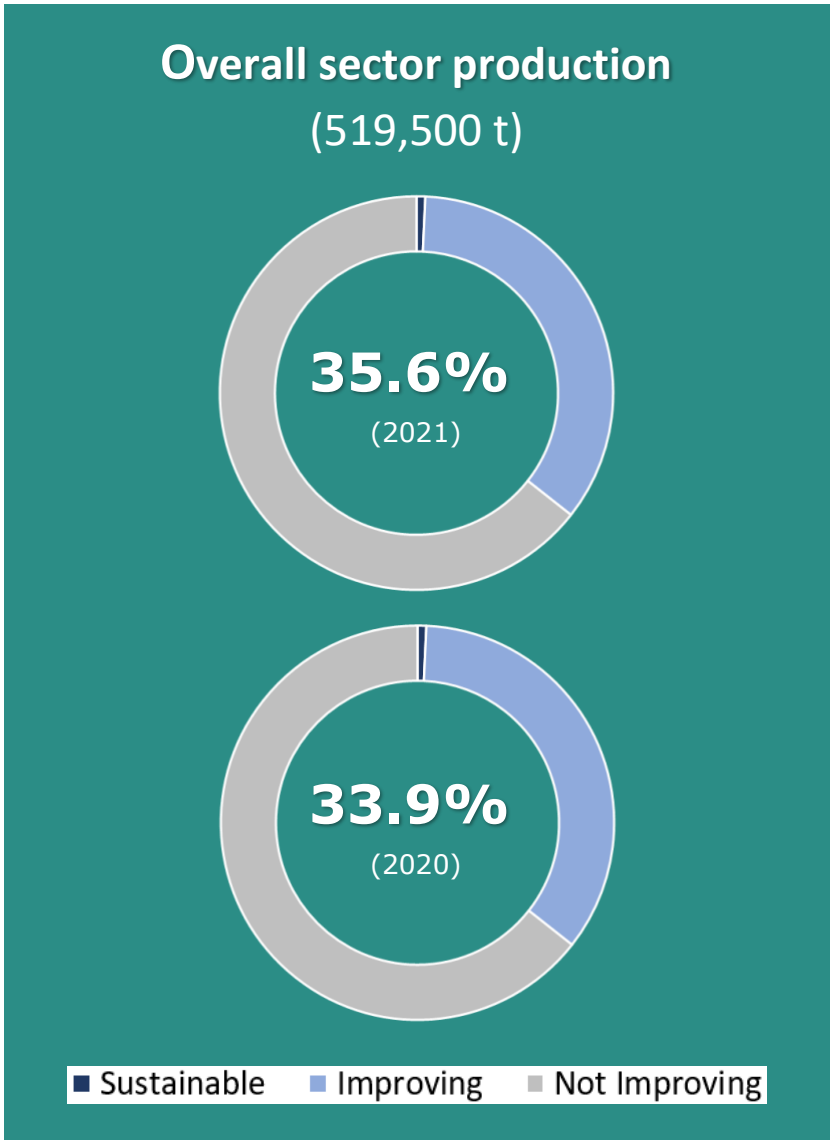
Exporter \ Importer	China	USA	South Korea	EU_EAA_UK	Japan	Hong Kong	Canada	Taiwan	Other	Total 2019 exports (USD million)	% of total exports
China	0%	14%	19%	2%	30%	9%	1%	12%	13%	629.1	14%
Indonesia	7%	72%	0%	4%	9%	1%	1%	0%	6%	392.0	9%
Vietnam	8%	39%	2%	10%	34%	2%	1%	0%	4%	146.3	3%
USA	26%	0%	1%	1%	1%	1%	53%	0%	17%	115.0	3%
Philippines	9%	62%	0%	1%	0%	13%	0%	8%	6%	98.6	2%
India	21%	42%	1%	2%	0%	2%	1%	6%	25%	84.6	2%
Myanmar	0%	0%	0%	0%	0%	0%	0%	0%	100%	78.5	2%
Mexico	0%	97%	3%	0%	0%	0%	0%	0%	0%	61.5	1%
Bangladesh	87%	0%	0%	5%	0%	1%	0%	0%	7%	60.6	1%
Thailand	16%	39%	2%	8%	2%	7%	3%	6%	15%	51.3	1%
% of total imports	**27%**	**24%**	**16%**	**7%**	**7%**	**4%**	**3%**	**1%**	**12%**		

Note: Available trade data for swimming crab is limited, with all traded swimming crab in global datasets reported as "Crab unspecified". Countries that are typically coldwater crab producers were thus removed from this trade data analysis.

5 PROGRESS AGAINST THE 75% TARGET

Currently, about **36 percent of global swimming crab production** (519,500 tonnes[1]) is considered **sustainable or improving.** Sustainable production (about 3.7 percent of the total sector) is mainly due to the *Louisiana blue crab* MSC fishery, which is for *Callinectus sapidus*. The improving production is mainly from Indonesia, but also from Mexico (list of fisheries available here).

Compared to the same period in 2020, the swimming crab sector overall showed a slight increase (1.7 percent) in percentage of volume that is sustainable or improving. This was driven by an increase in the improving category, mainly due to Mexican FIPs that moved from stalled to Active A-C rated FIP status (e.g., Mexico Campeche blue crab - pot/trap & ring nets, Mexico Gulf of California swimming crab - pot/trap/ring net, Mexico Western Baja California Sur swimming crab - pot/trap.) These changes result only from wild production, since there is no improvement occurring in farmed production.



[1] The estimated global 2019 production assumes that, for the countries that report all marine crabs aggregated (China, India, Vietnam, and Sri Lanka), at least 50 percent of the production refers to blue swimming crab.

6 CHALLENGES TO SUSTAINABILITY

Almost all blue swimming crab fisheries in Asia face similar challenges, including:

- Lack of nationwide, species-specific stock assessments and appropriate management measures
- Inadequate enforcement and monitoring of the fishery and fishing operations
- Insufficient precaution in protecting the stocks – of particular concern are the landing, harvest, and sale of juvenile crabs and berried females (female crabs bearing eggs) and the declining trend in crab size and catch per unit effort
- Some significant impacts on bycatch and retained species, especially in bottom trawl and gillnet fisheries.

Since swimming crabs are mainly harvested by artisanal fleets spread out across large areas and involving many vessels and fishers, there remain the following challenges, in addition to the above:

- Lack of data-collection programs, leading to insufficient data to assess the fishery and develop fishery management measures
- Informality of the fishery with very low vessel registration
- Fishers early in the process of becoming organized to represent their interests in the fishery and in need of organizational and leadership capacity support
- Fishers not fully engaged in the decision-making processes for development of fishery management measures
- IUU risks in the fishery and for the export market. There are risks both for the “illegal” and “unreported” aspects of IUU – primarily through the lack of robust audit systems to ensure illegal product is not entering the supply chain and the lack of vessel and fisher registration leading to unreported catches.

As such, the focus for improvement efforts lies in implementing mechanisms (i.e., control document and independent audit systems and vessel registration) to reduce IUU risks, and developing co-management approaches that will better engage fishers in managing swimming crab resources. SFP’s focus is on Indonesian blue swimming crab (BSC), working with the NFI Crab Council and industry across the supply chain to address these issues.

Further information can be found on the SFP website: https://sustainablefish.org/roundtable/southeast-asian-blue-swimming-crab/

Captured egg-bearing female swimming crab, Indonesia. © SFP

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8 GLOSSARY

AIP	Aquaculture Improvement Project
ASC	Aquaculture Stewardship Council
ASMI	Alaska Seafood Marketing Institute
BAP	Best Aquaculture Practices
EEZ	Exclusive Economic Zone
ETP	Endangered, Threatened, Protected species
FAO	Food and Agriculture Organization
FIP	Fishery Improvement Project
GLOBALG.A.P.	Worldwide Standard for Good Agricultural Practices
GCN	GLOBALG.A.P.'s certified, responsible farming and transparency label
IRF	Iceland Responsible Fisheries
ISSCAAP	International Standard Statistical Classification of Aquatic Animals and Plants
MARINTRUST	Global Standard for Responsible Supply of marine ingredients (Formerly IFFO RS)
MSC	Marine Stewardship Council
MSC C	Marine Stewardship Council Certified
MSC FA	Marine Stewardship Council Full Assessment
MBAq	Monterey Bay Aquarium
NEI	Not Elsewhere Included
NGO	Nongovernmental Organization
SFW	Seafood Watch
SR	Supply Chain Roundtable
T75	SFP Target 75 initiative
UoC	Unit of Certification (for a fishery under the MSC program)

Appendix I | Reported 2019 production by species (A) and trends in annual production by species (B)

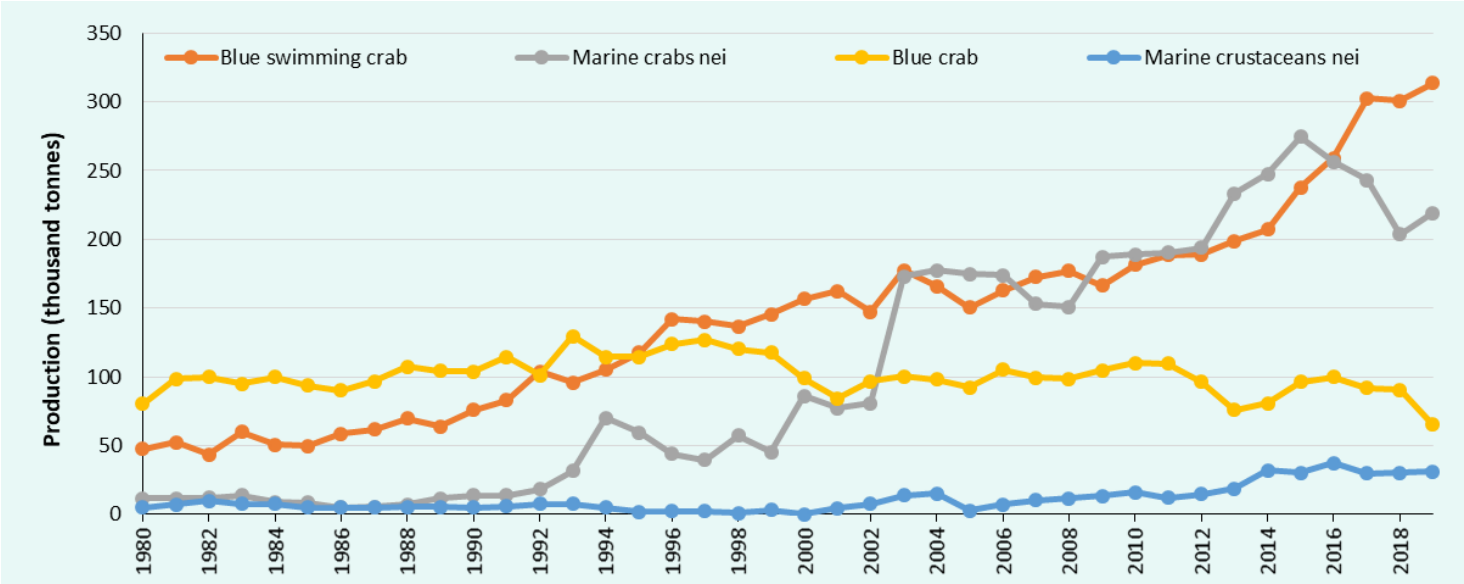
(A) 2019 production by species

Common name	Scientific name	2019 production ('000 t)	% of total
Blue swimming crab	*Portunus pelagicus*	313.4	49.7%
Marine crabs nei	*Brachyura*	219.0	34.7%
Blue crab	*Callinectes sapidus*	65.4	10.4%
Marine crustaceans nei	*Crustacea*	31.0	4.9%
Other		2.3	0.4%

Source: FAO FishStat (FAO 2021a).

Note: Broader commodity groups ("Marine crabs nei" and "Marine crustaceans nei") may include other temperate and warmwater crab species.

(B) Trends in annual production for the top crab species



Bucket of blue swimming crab © **Shutterstock**

FURTHER INFORMATION

http://www.sustainablefish.org/

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