INDO-PACIFIC FISHERIES*

Daniel Pauly

Sea Around Us, Institute for the Oceans and Fisheries, 2202 Main Mall, University of British Columbia, Vancouver, Canada
d.pauly@oceans.ubc.ca

Abstract
This contribution briefly reviews the main biological, historic, and fleet-operational features of the fisheries in the Indian and Pacific Oceans, with some emphasis on the South China Sea, whose fisheries, largely dominated by China, exemplify the many biological, economic, and political challenges that beset the sector throughout much of the Indo-Pacific.

Introduction
The Indo-Pacific, here defined as an ensemble encompassing the Indian Ocean and the Pacific Ocean, but excluding waters south of the Antarctic convergence, covers 233 million km², i.e., 64% of the world’s oceans.

In spite of the immense area it covers, the Indo-Pacific is rather homogeneous in terms of its fish fauna, which, while remarkably diverse, does not change much from South Africa in the west to Central America in the east. Both the high diversity of these fishes and the wide distribution ranges that some species result from the Indo-Pacific fauna being derived from the ancient Tethys Ocean, hundreds of millions of years ago. While the fish fauna along the tropical east-west axis is remarkably similar, there are obviously major latitudinal differences, which become particularly important in the North Pacific, where a cold-water fish fauna occurs that is similar to that of the North Atlantic.

In contrast to the relative uniformity of its fish fauna, Indo-Pacific regions are home to vastly different people and cultures. Thus, we have, from West to East, East Africa, the Arabian Peninsula, India and its South Asian neighbors, Southeast Asia, China, Japan and the Russian Far East, and further south, Australia, the island states of Oceania, and finally the coast of America from Alaska in the north to Chile in the south. This enormous range encompasses people with long fishing history, such as the Polynesians, and people relying mostly on nearshore subsistence fishing such as in the Solomon Islands and Vanuatu, and others with a tradition of industrial distant-water fishing such as Japan which operated before WWII throughout the Pacific, including Alaska (Finlay 2011), as well as relative newcomers in long-range fishing, such as Thailand (Panayotou and Jetanavanich 1987) and China (Colin 2016).

Indo-Pacific Fisheries post-WWII
Prior to WWII, most fisheries in the Indo-Pacific were local. Following WWII and the opening of “Mac Arthur’s Box,” which had confined Japanese vessels to their domestic waters, they re-initiated in the 1950s their distant water fishing operations across the entire Indo-Pacific and into the Atlantic (Swartz et al. 2010), therein closely followed by South Korea and Taiwan. In the Eastern Pacific, tuna fishing was dominated by the U.S.A., but their reach was gradually challenged by South American countries claiming a “Mar Patriótica”, extending up to 400

miles in the open ocean, claims that were initially dismissed, but which led to the adoption in 1982 of the U.N. Convention on the Law of the Sea (UNCLOS), then strongly opposed by Japan, the then Soviet Union, and the U.S.A. UNCLOS gave each maritime country the right to claim a 200-mile Exclusive Economic Zone (EEZ). This enabled them to implement their own fishery development either by developing domestic fisheries capable of exploiting the entirety of their newly acquired EEZ, or by offering countries with distant water fleets access agreements, usually at a moderate fee, which allowed them to continue exploiting coastal resources now within EEZs.

In the 1970s, the newly emerging Thai trawl fishery, initiated by a German aid project and massive subsidies by the Asian Development Bank ‘spill out’ of the Gulf of Thailand, and expanded into neighboring countries, ultimately reaching all the way to Somalia in the west and Eastern Indonesia in the east. This expansion was partly reversed by a massive fuel price increase in the late 1970s and then by the newly claimed EEZs of Indo-Pacific countries, which required funds to pay for access agreements. Thus, began a period where Thai distant-water fishing consisted of a mixture of legal operations with access agreements and illegal fishing, i.e., fishing without access agreements, or deploying more vessels than initially agreed upon.

From 1985 on, China got into the picture and, like Thailand, China deployed trawlers equipped for coastal fishing in its overseas operations, in contrast to Japan, South Korea, and Taiwan, which concentrated on tuna fishing in the high seas. Thus, China, as with Thailand before, quickly became embroiled in a series of problematic ventures along the coasts of multiple countries, many resulting in conflicts with local artisanal fishers (Pauly et al. 2014).

China now has the largest fishery catch in the world, and thus also of all Indo-Pacific countries, followed by Peru, which exploits essentially one low-value species (an anchovy overwhelmingly reduced to fishmeal), and a number of countries such as Russia, Japan, Thailand, India and others, which jointly catch about 75 millions of tonnes annually, down from about 85 million tonnes in mid-1990. Jointly these fish and invertebrates are worth about $130 billion annually, of which China has the lion’s share, over $20 billion annually (see www.searoundus.org).

The South China Sea is at the center of the Indo-Pacific region and may been seen as its microcosm, although it is also a giant water body, which, while severely overfished, generates a fishery catch of 10 million tonnes per year. Here China dominates even more, both in terms of its catches and the fleets it deploys (Pauly and Liang 2019). However, more importantly, China claims sovereignty over most of the South China Sea, while negating the EEZ claim of other countries such as Vietnam, Malaysia, and the Philippines. This last country, indeed, complained to the International Court and won (Holmes and Phillips 2016). However, this decision is not recognized by China, which has rather armed its fishers and their vessels such that they can impose their presence wherever they want to operate (Denier 2016).

This has led to an extremely dangerous situation where conflicts between fishers could quickly escalate. Moreover, China’s plan for 2020 still foresees an increase - although a modest one - of its distant-water catch. At the same time, China is proposing to involve many of the countries bordering the South China Sea, as well as Indian Ocean countries in their Maritime Silk Road Initiative, which, according to its founding documents, aims at mutual benefits for all the countries involved. How these contradictory policies can be harmonized is not clear.

What is clear, however, is that the competition for dwindling fisheries resources in the Indo-Pacific will lend to their further decline. This is regrettable because fish is crucial to the food security of numerous countries around
the region (Golden et al. 2016). They would be better served by dedicated programs of rebuilding the depleted fish populations in their EEZs, including in China.

References