

The Fisheries of the Southern Mediterranean, from Morocco to Turkey (1950-2019)

Daniel Pauly

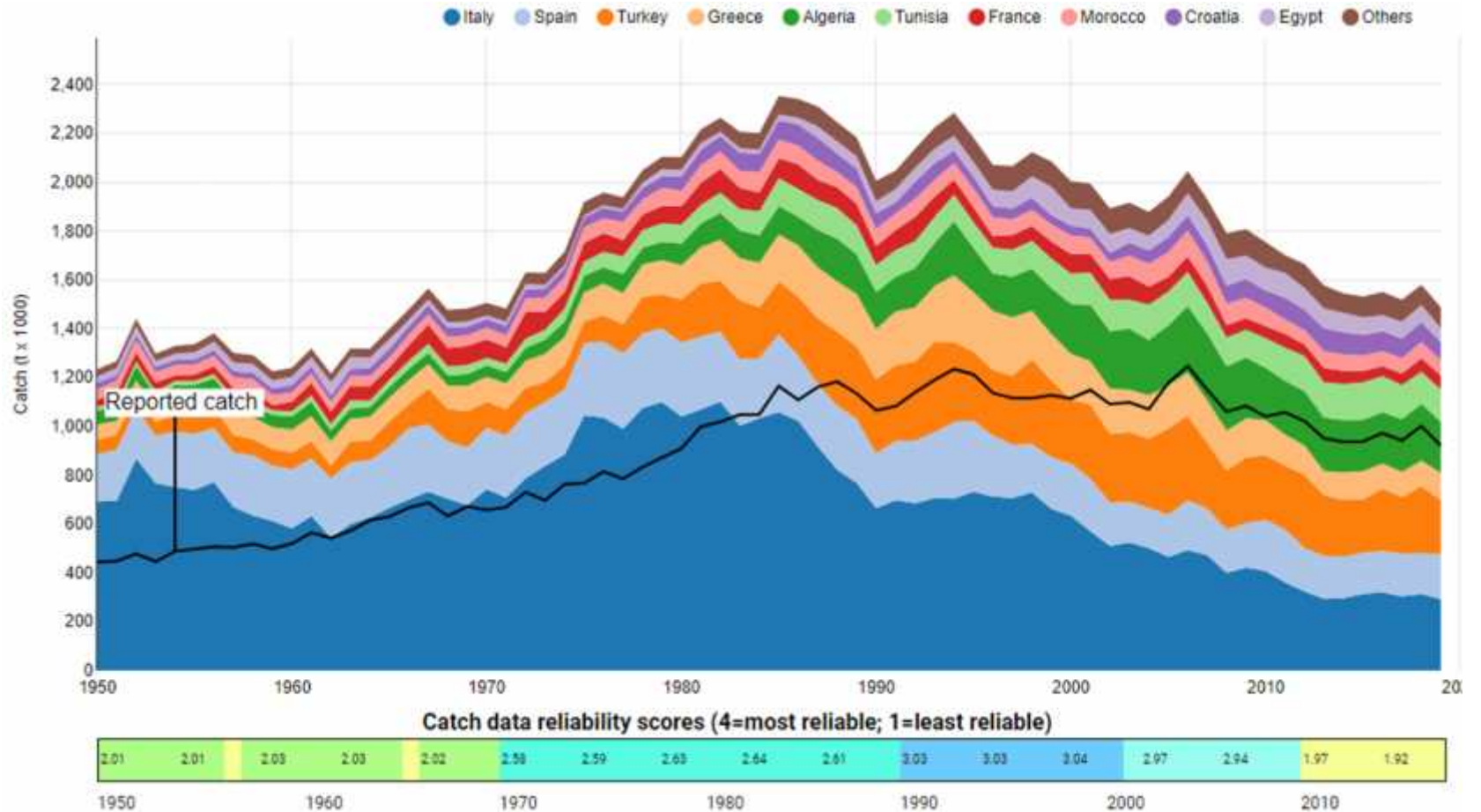
Professor of Fisheries and Principal Investigator,
Sea Around Us, Institute for the Oceans and
Fisheries, University of British Columbia,
Vancouver, Canada



Bisan Lecture, December 2022



Catch by country of the marine fisheries of the Mediterranean, 1950-2019

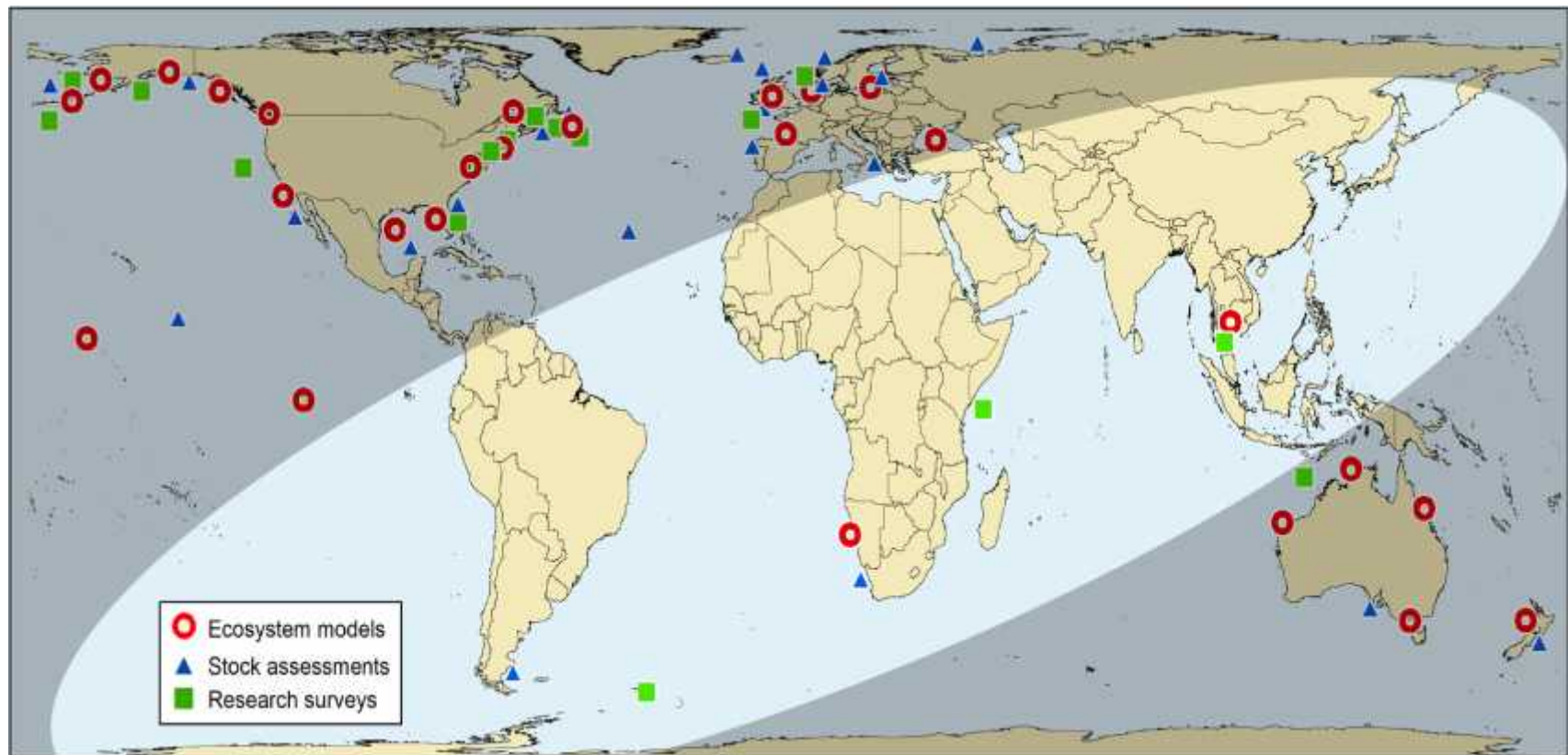


Member states of the European Union



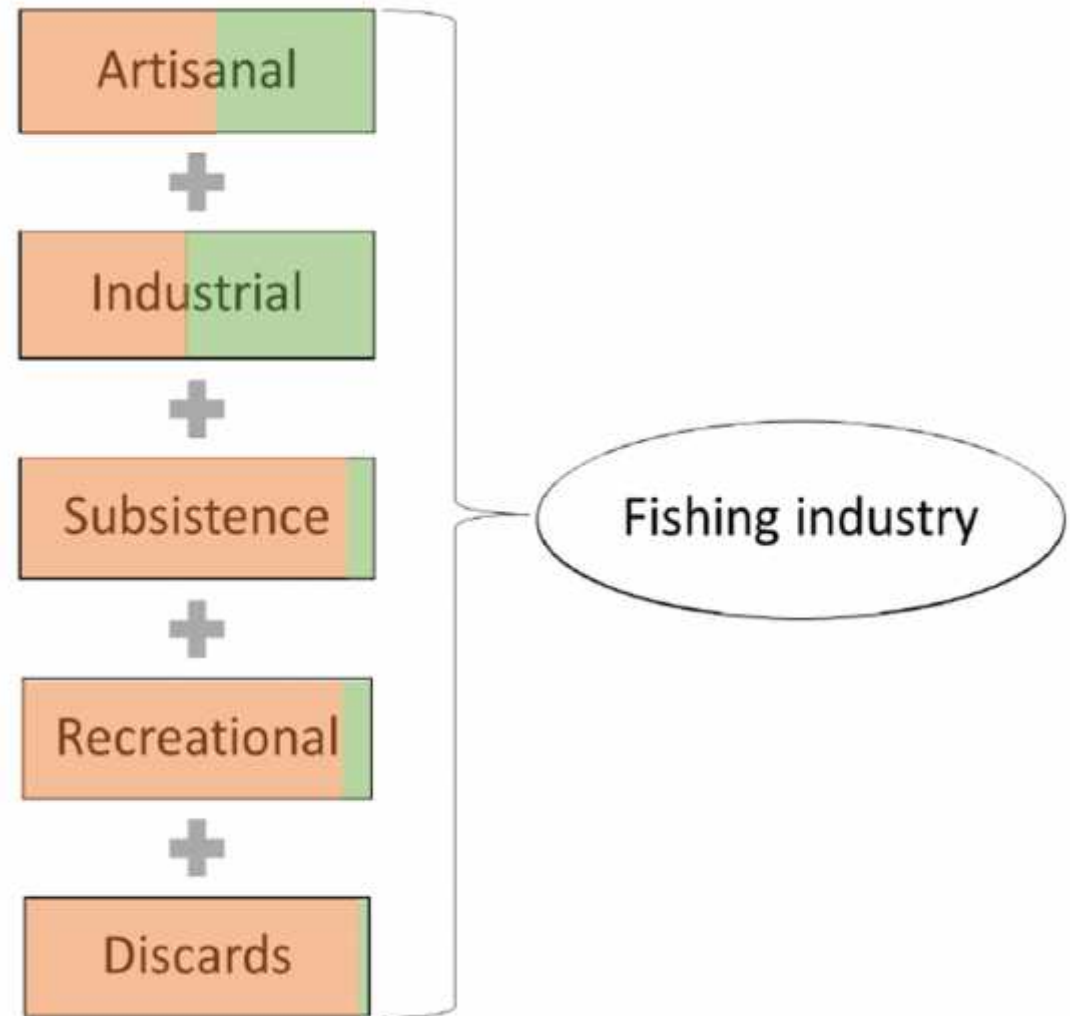
Not....

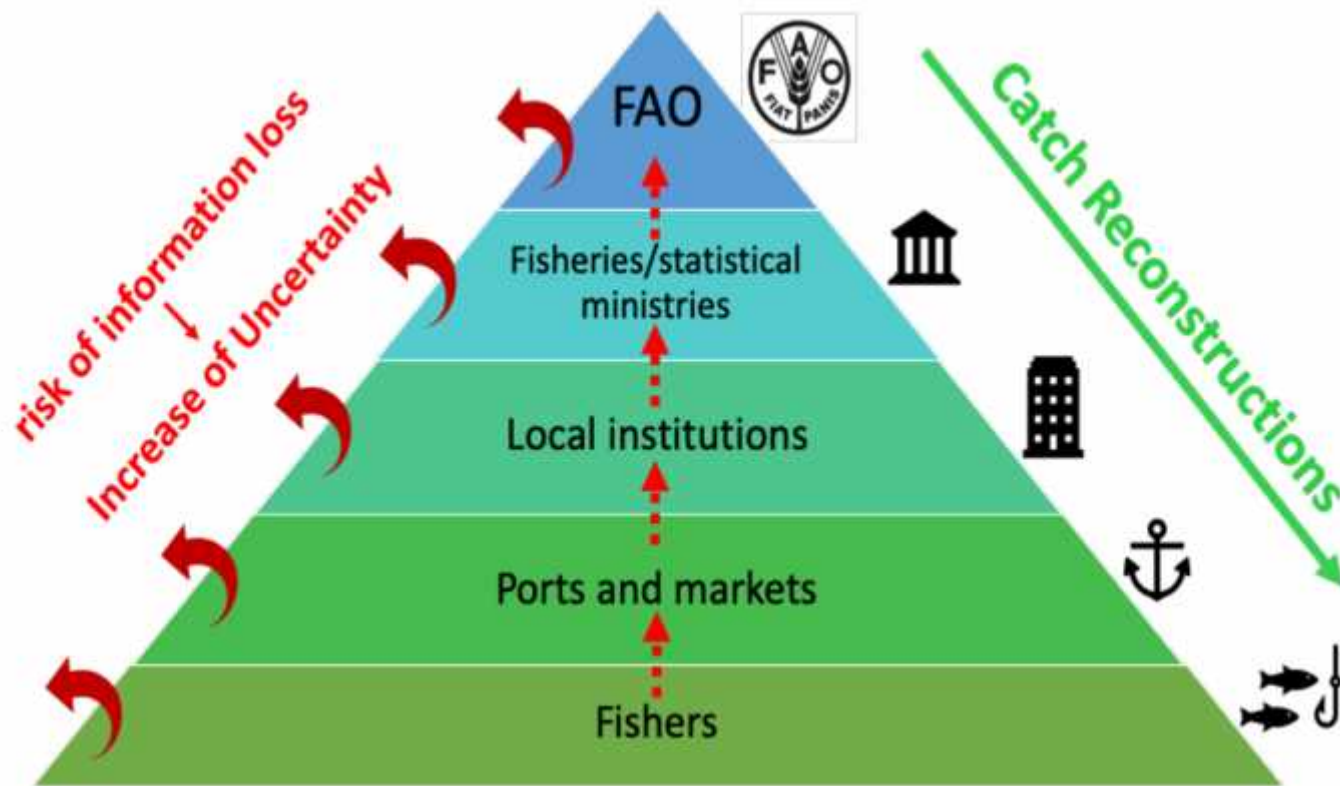
How bias looks like....



The elements
that must be
considered
when dealing
with fisheries

From: Khalfallah, Myriam. 2020. Data-poor
fisheries: Case studies from the Southern
Mediterranean and the Arabian Peninsula.
Ph.D. thesis, the University of British
Columbia, Vancouver, Canada: 349 p.

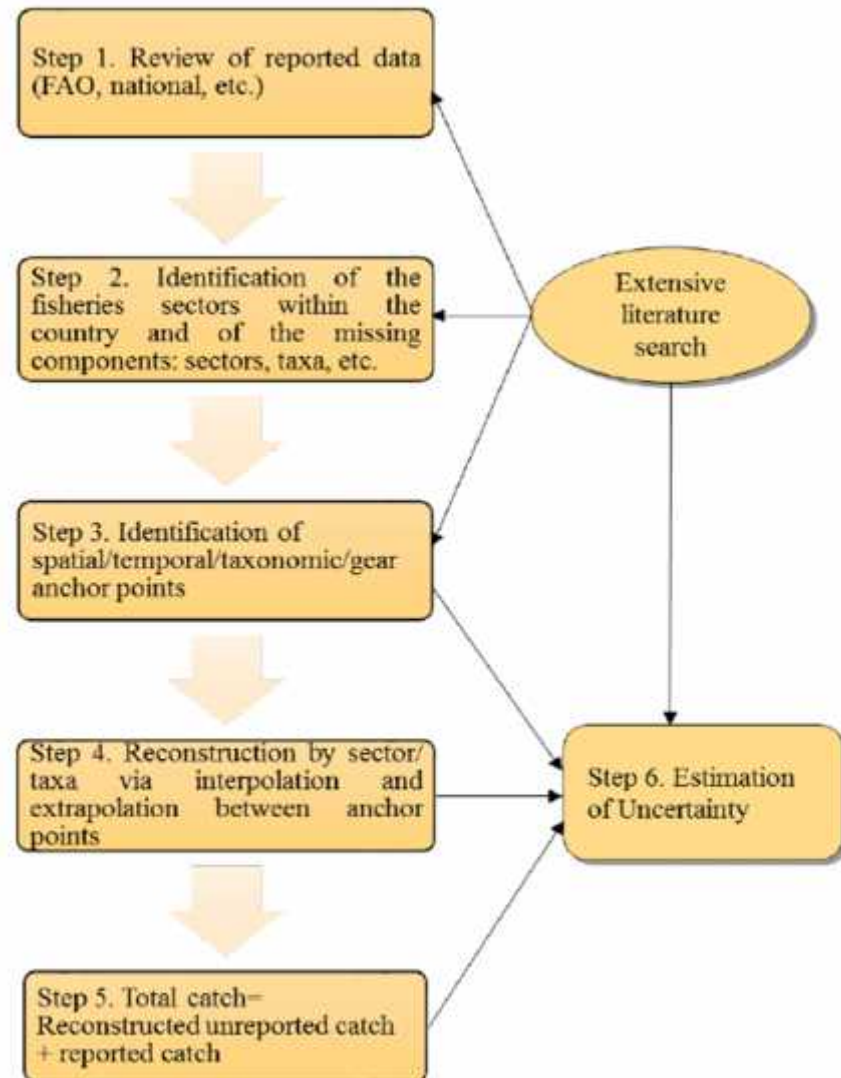




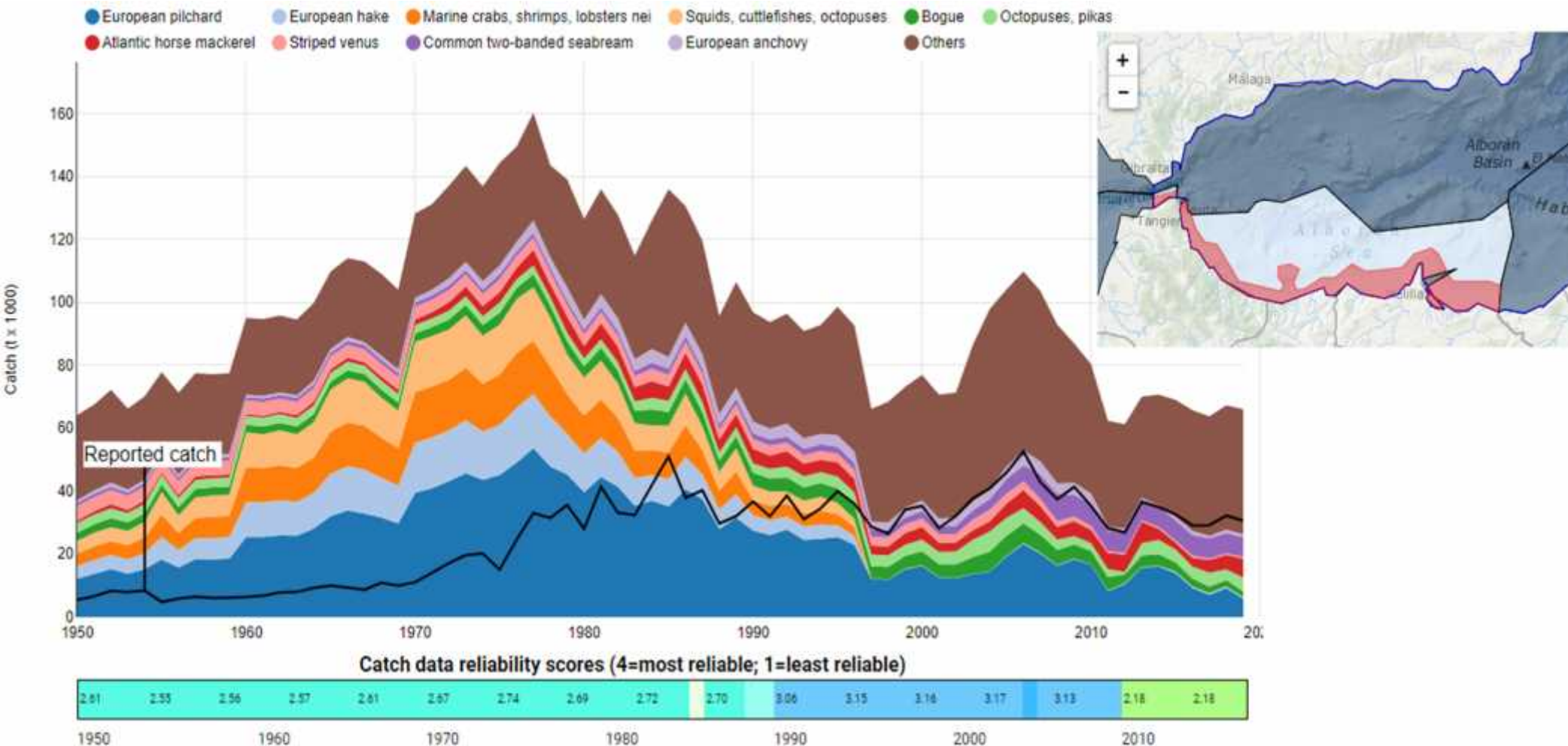
From: Khalfallah, Myriam. 2020. Data-poor fisheries: Case studies from the Southern Mediterranean and the Arabian Peninsula. Ph.D. thesis, the University of British Columbia, Vancouver, Canada: 349 p.

The elements that must be considered when doing a catch reconstruction

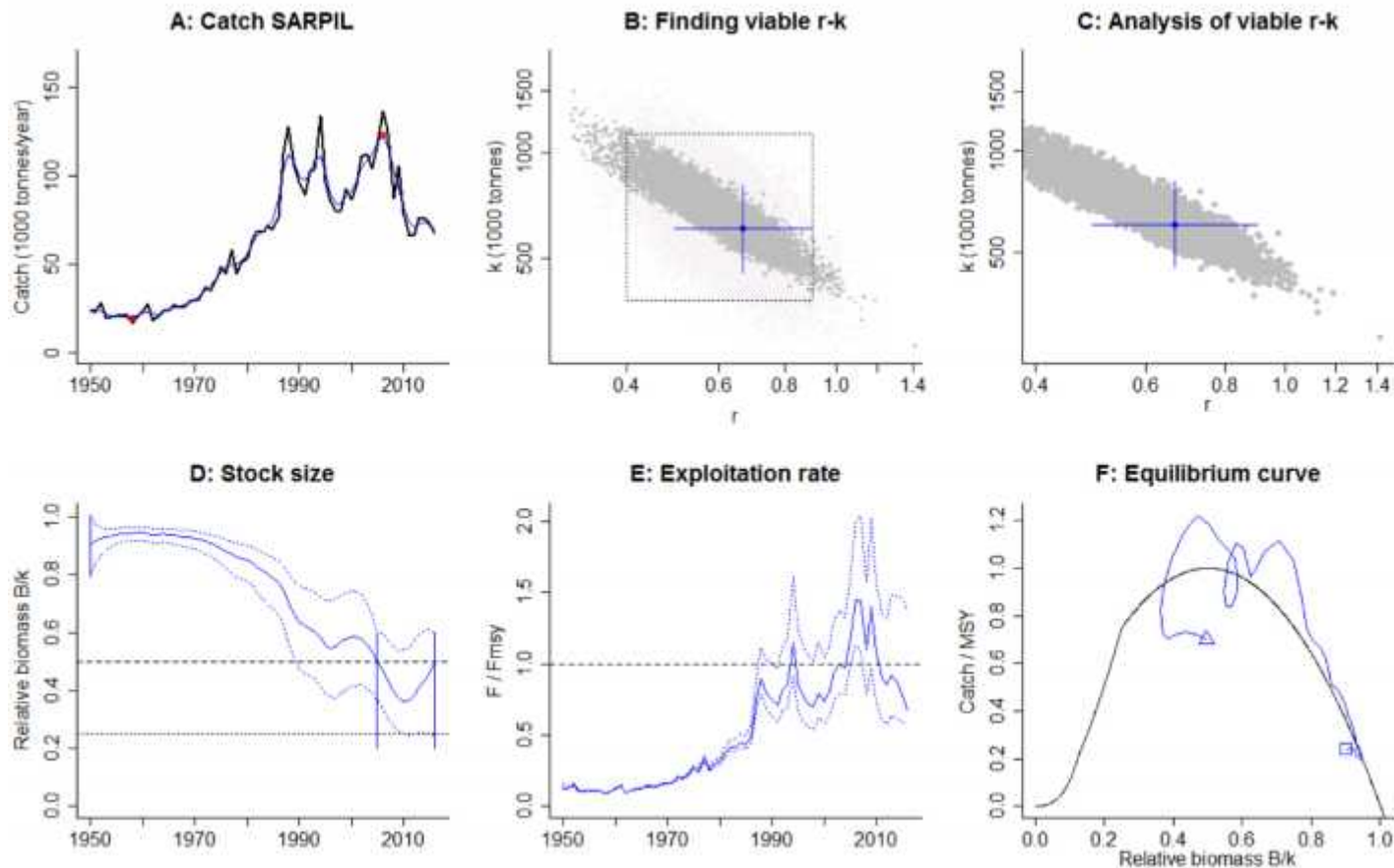
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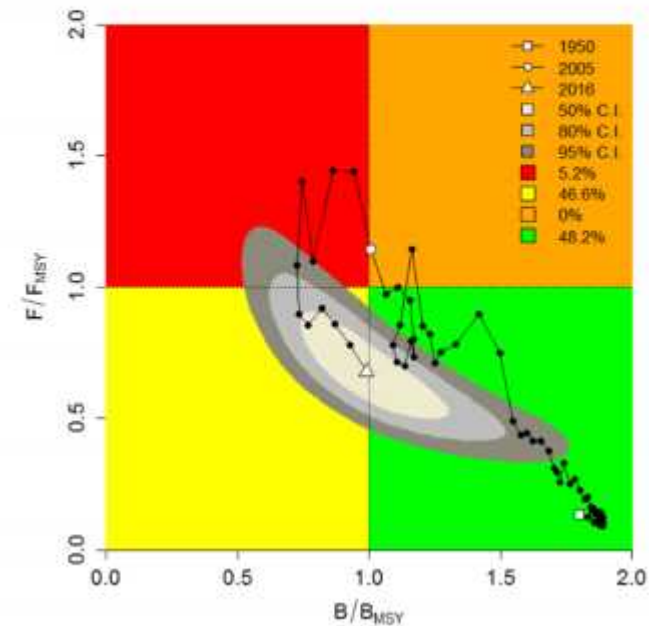
Marine fisheries catch of Morocco in the Mediterranean, 1950-2019



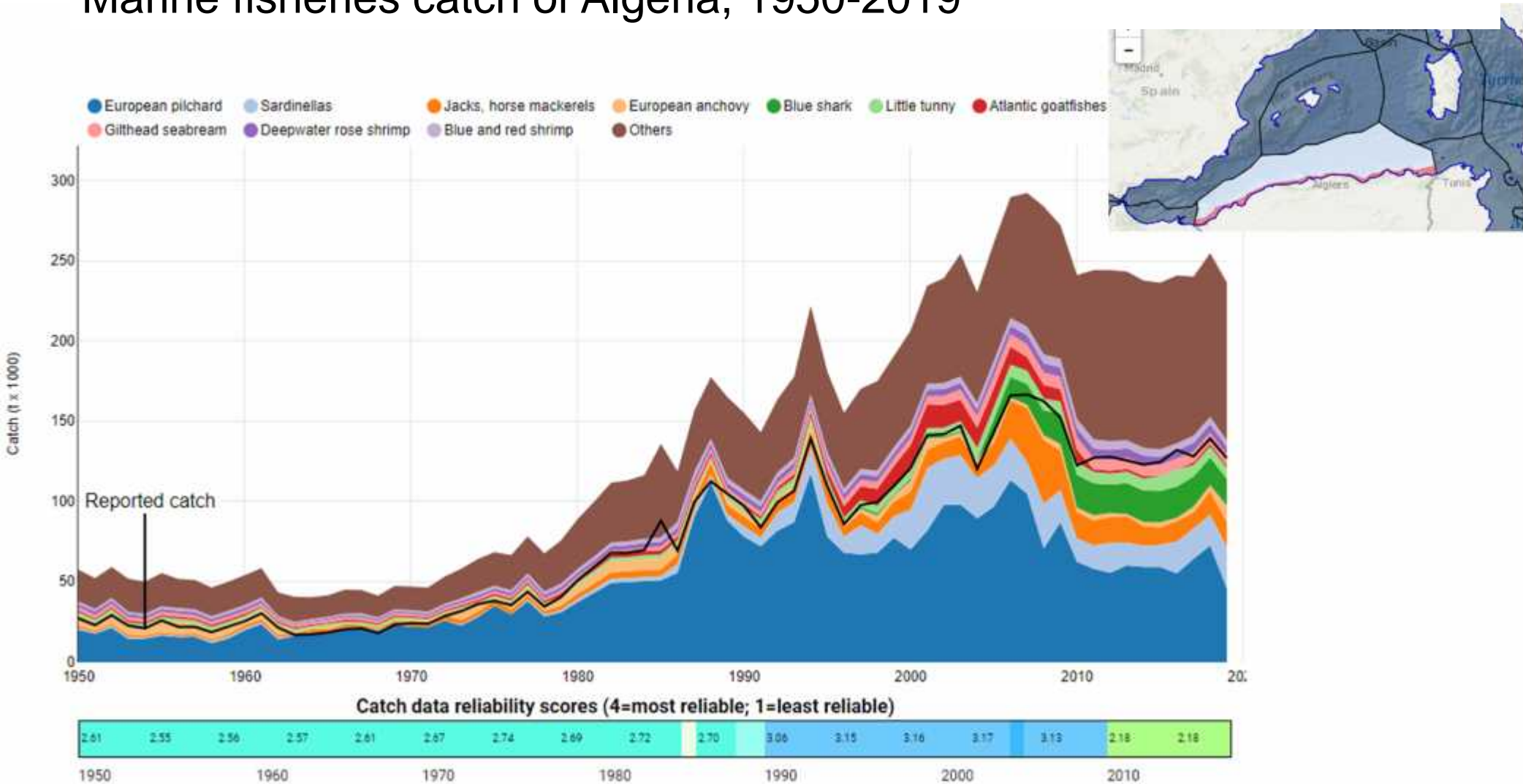
‘Stock assessments’ tell how an exploited stock is doing, and they can now be done easily



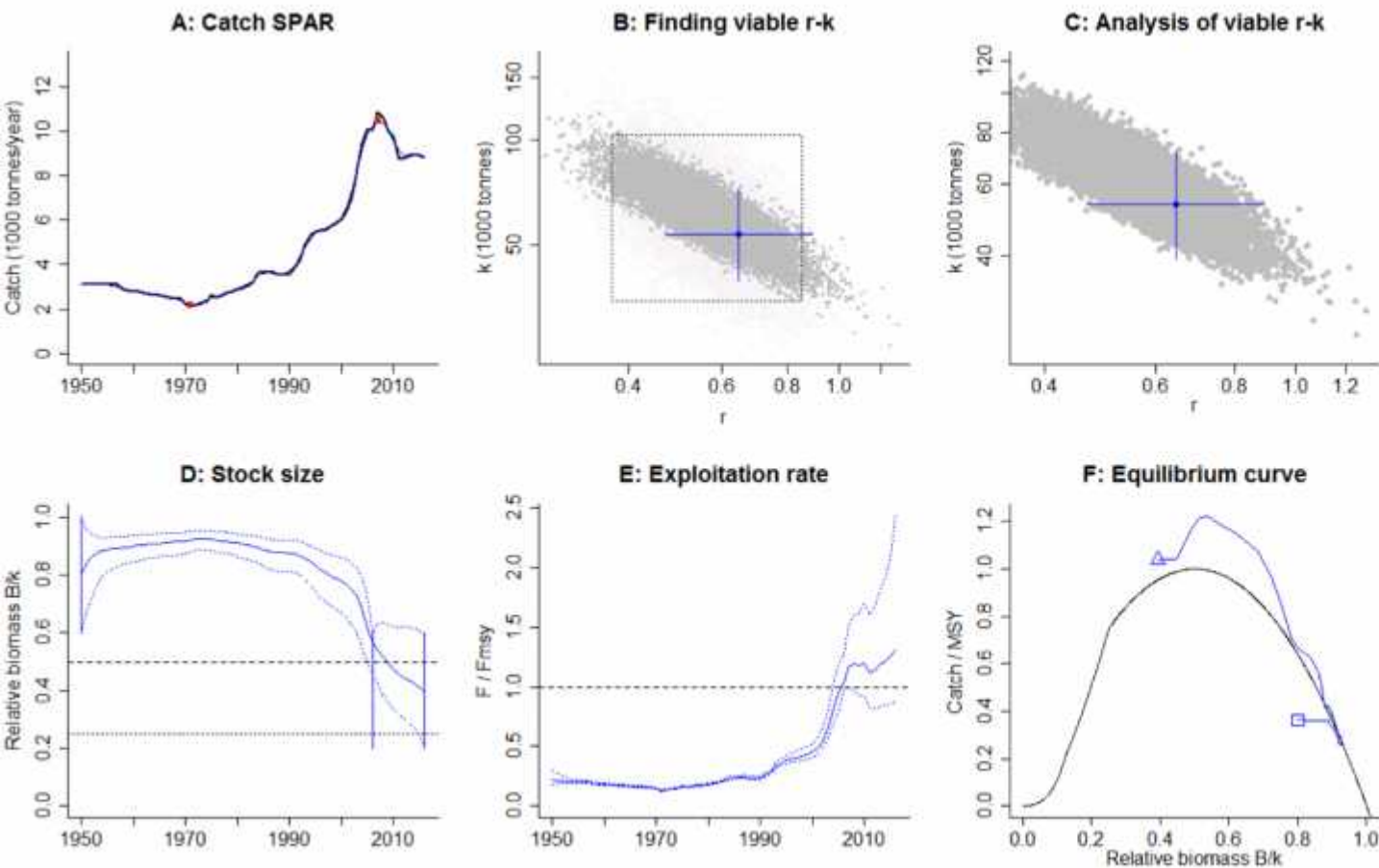
CMSY results for the stock of *Sardina pilchardus* within the Mediterranean EEZs of Algeria and Morocco



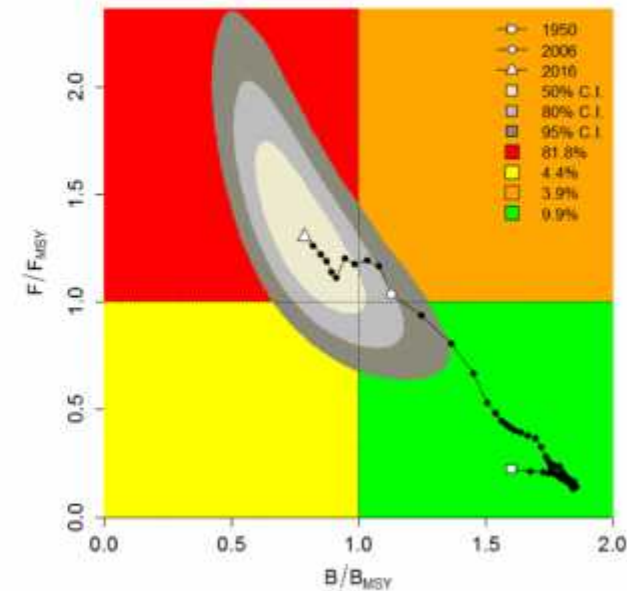
Marine fisheries catch of Algeria, 1950-2019



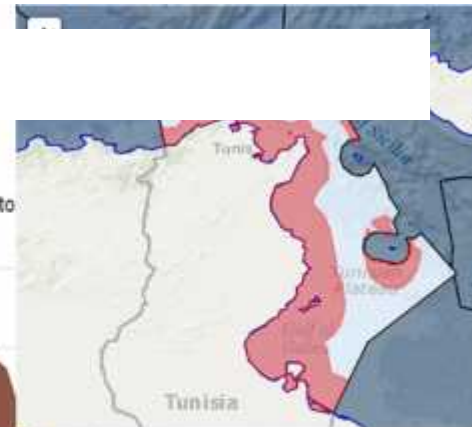
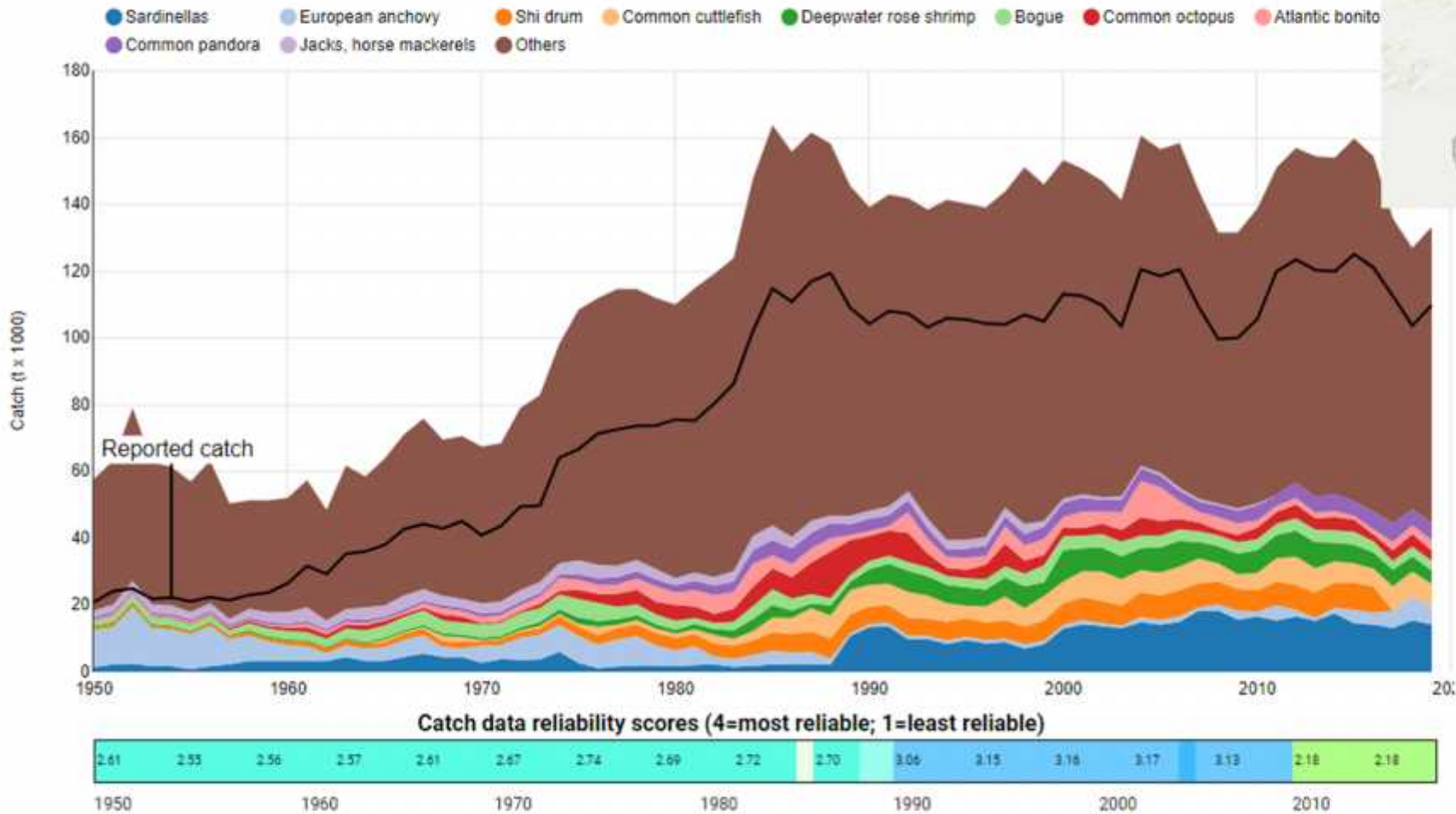
Thus, one can tell, e.g., that the sardine stock off Algeria and Morocco is overfished....



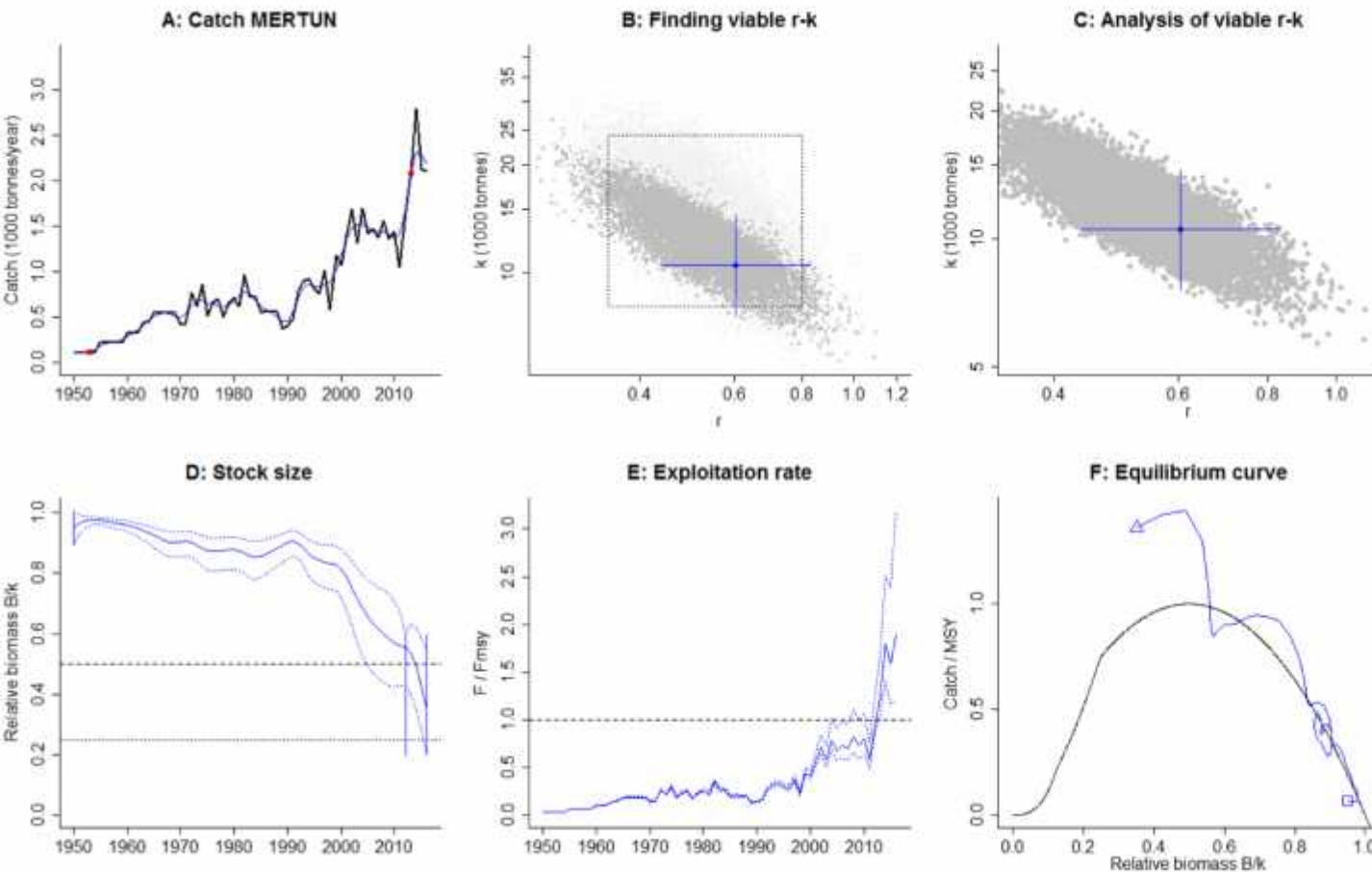
CMSY results for the stock of *Sparus aurata* within the Mediterranean EEZs of Algeria and Morocco



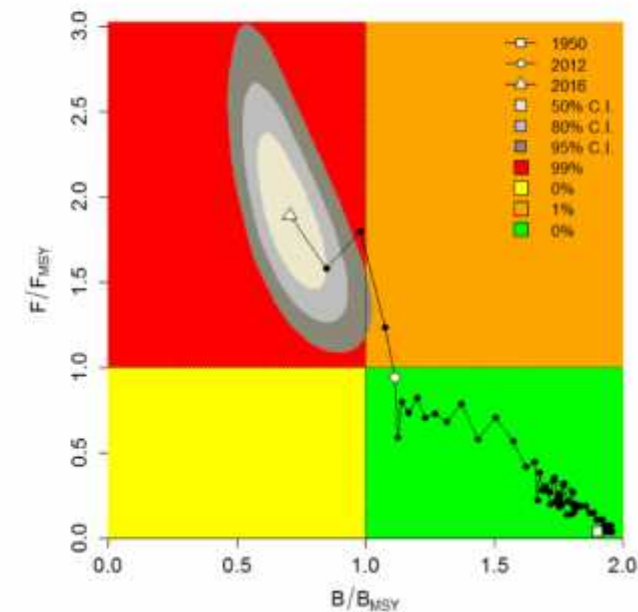
Marine fisheries catch of Tunisia, 1950-2019



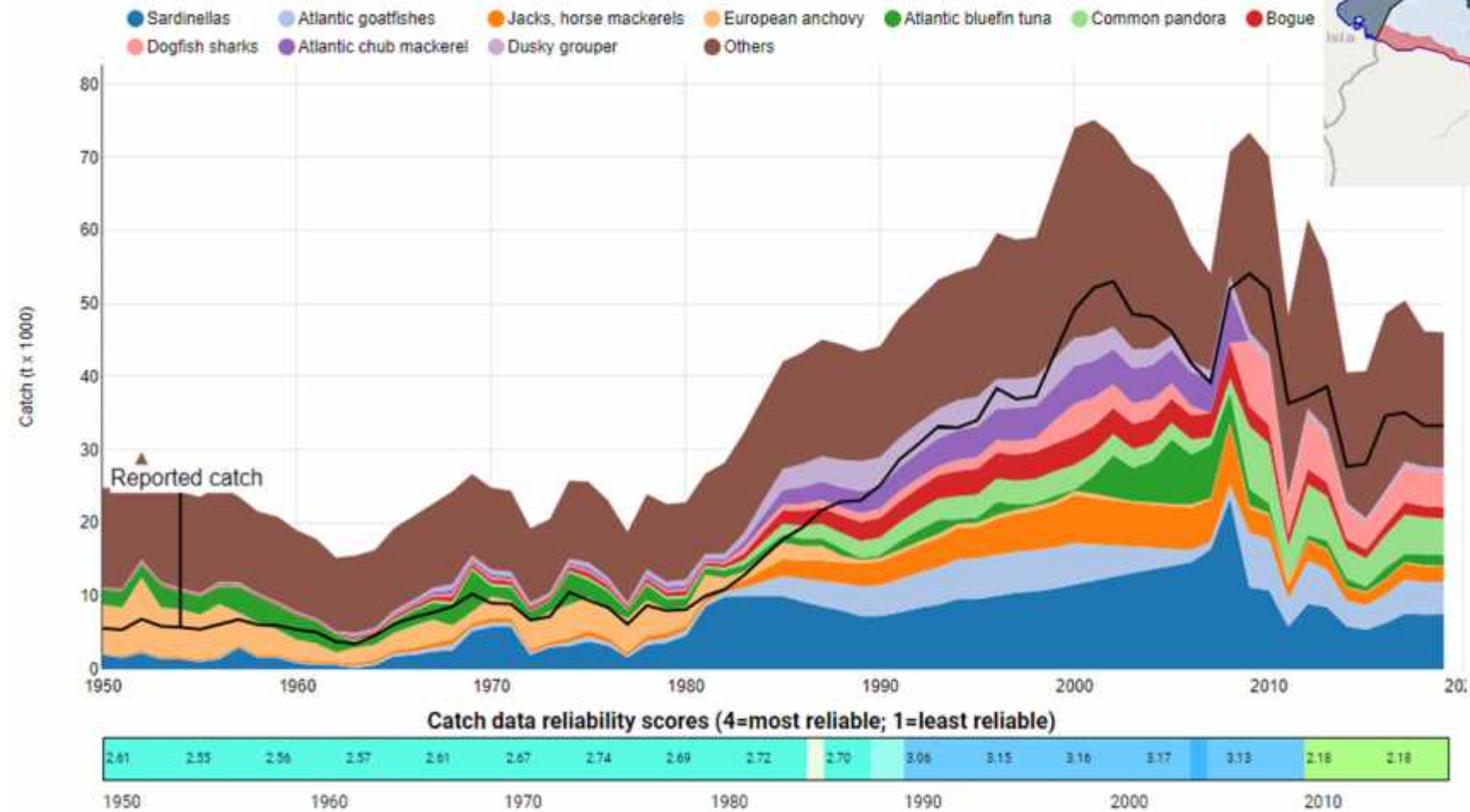
The hake stock in Tunisian waters is also overfished....



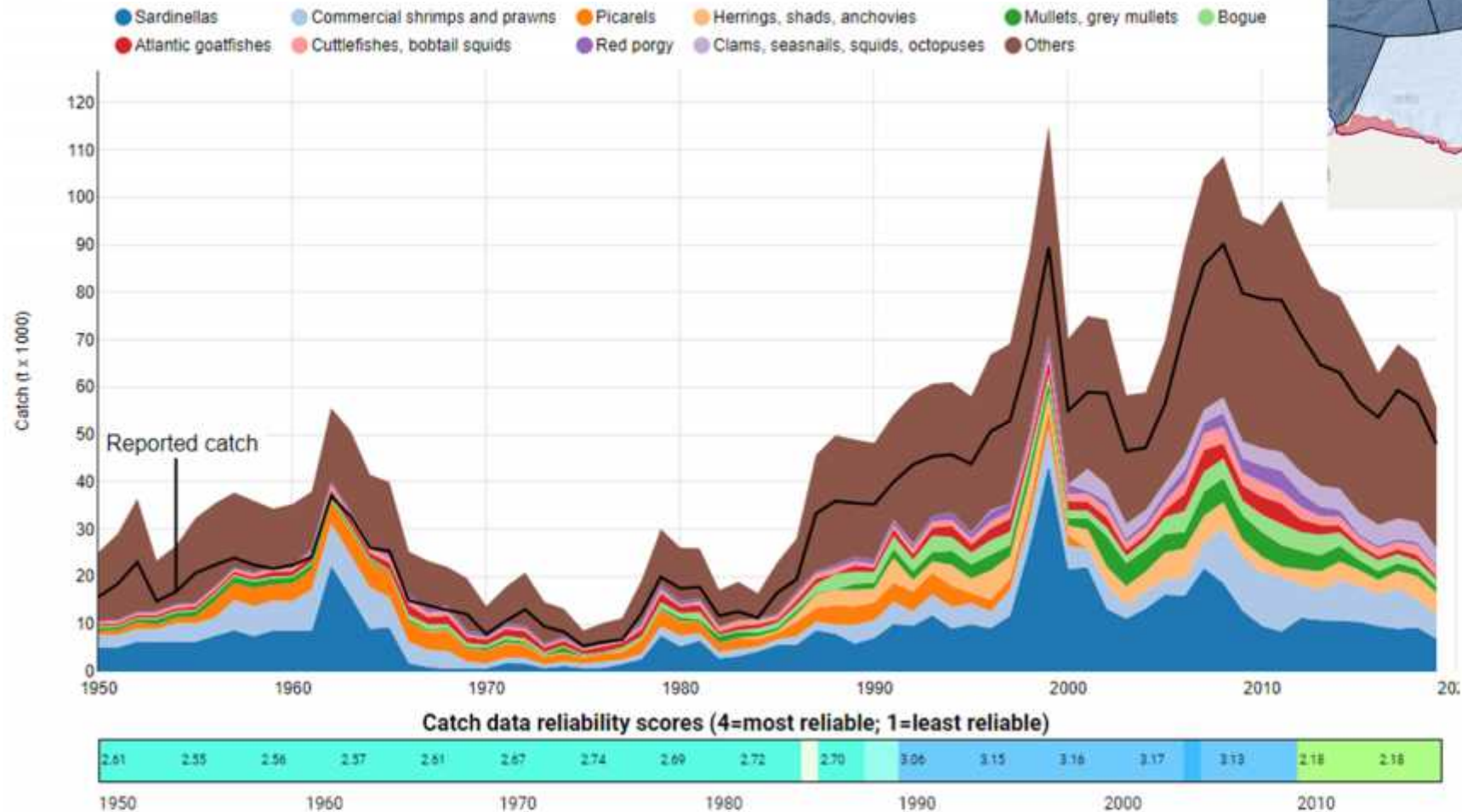
CMSY results for the stock of *Merluccius merluccius* within the EEZ of Tunisia



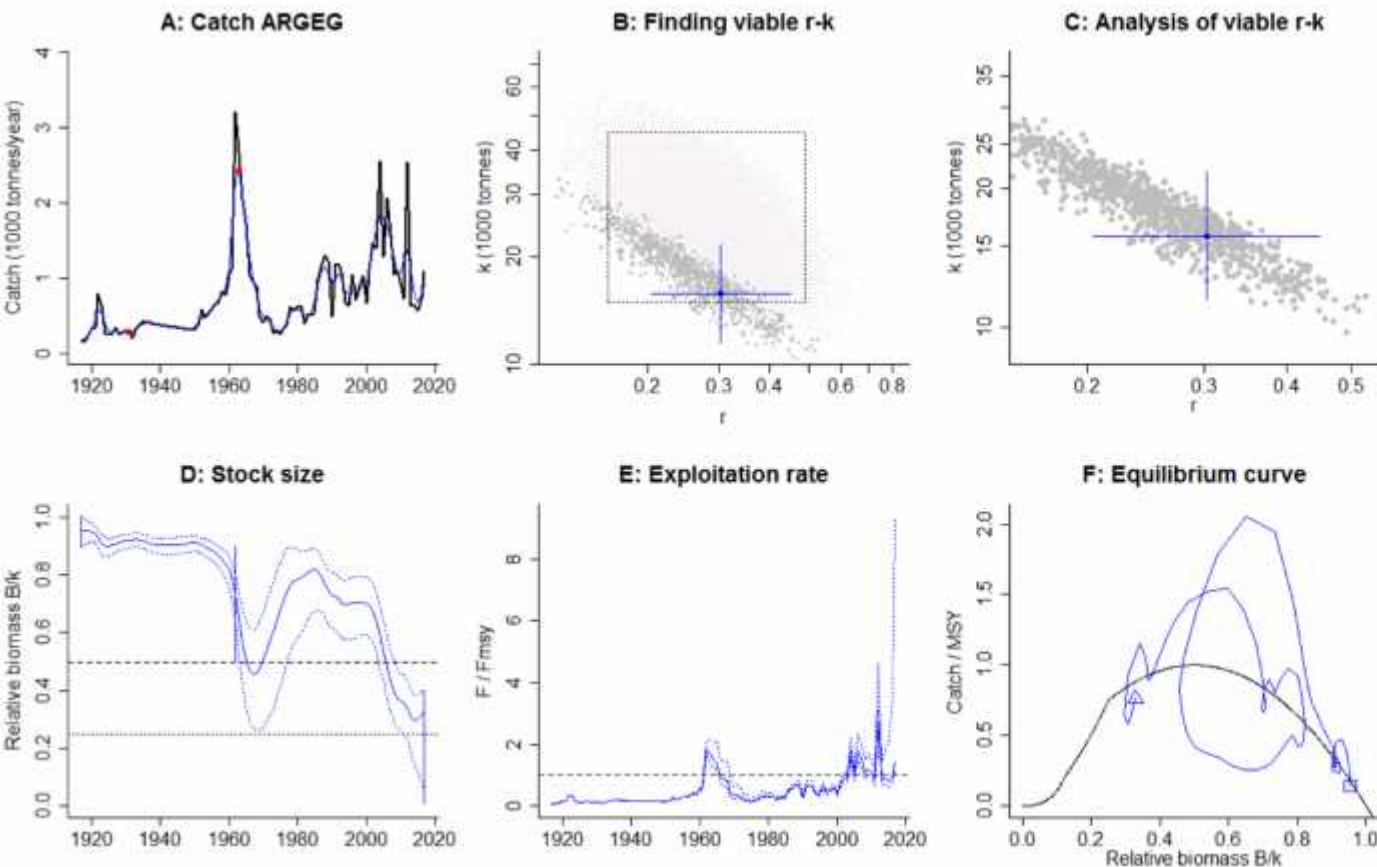
Marine fisheries catch of Libya, 1950-2019



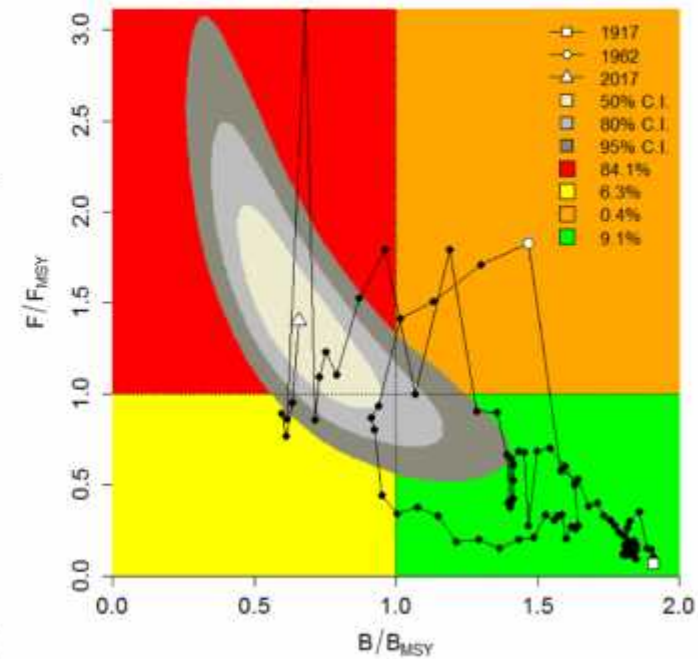
Marine fisheries catch of Egypt in the Mediterranean, 1950-2019



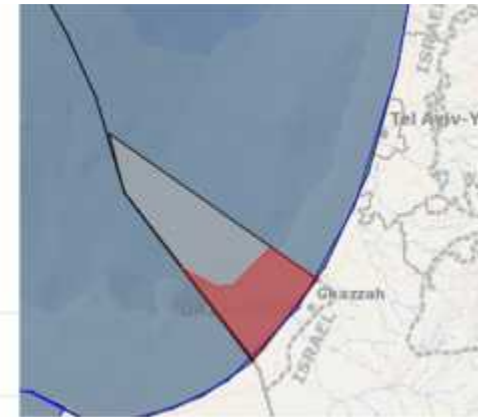
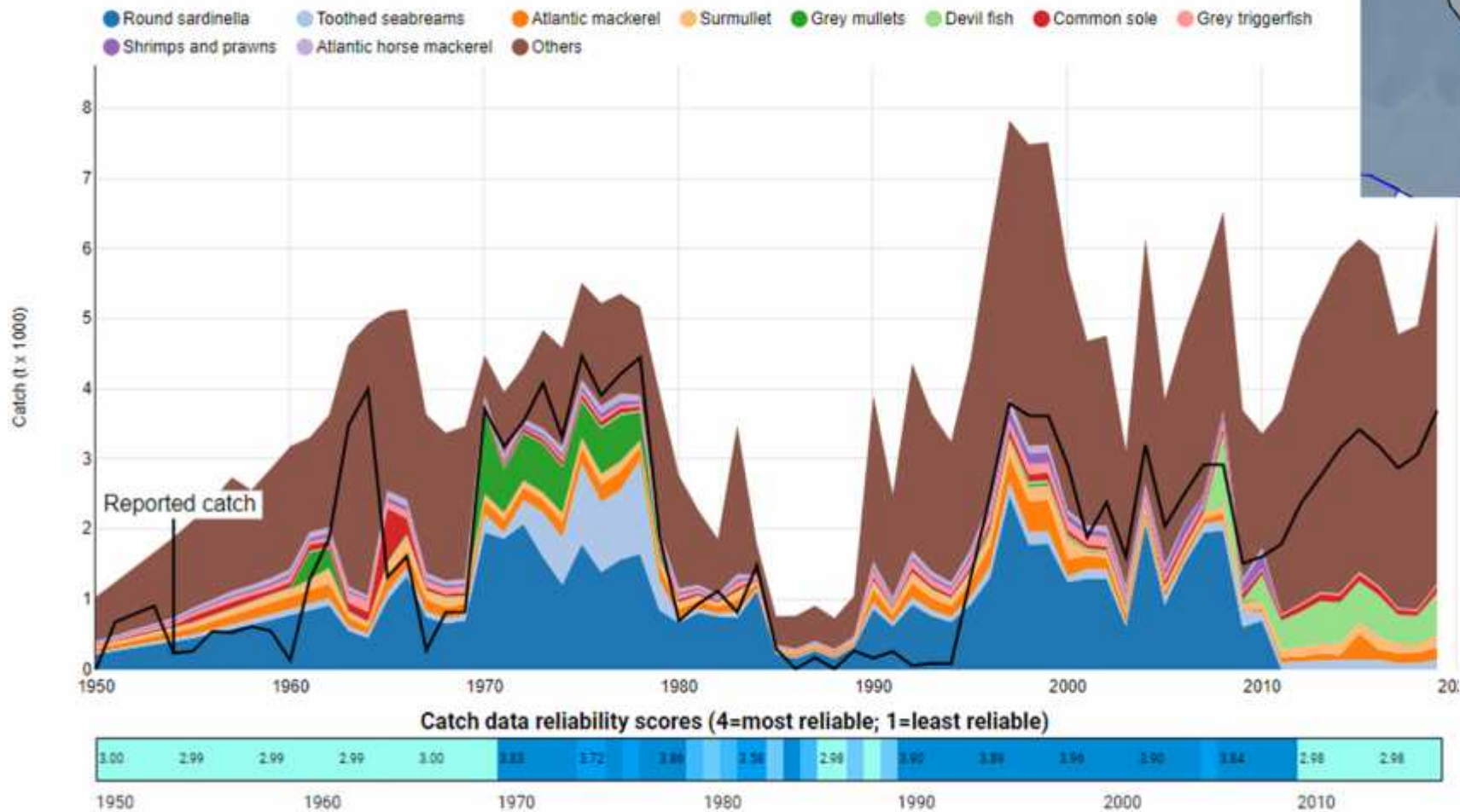
Things are not better for meagre (*Argysomus regius*) off the Egyptian coast...



CMSY results for the stock of *Argyrosomus regius* within the Mediterranean EEZ of Egypt



Marine fisheries catch of the Gaza Strip, 1950-2019



We succeed in separating the catch from Gaza to be separated from the Israeli catch, so the their fisheries could be studied independently. But the real problem remained...

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ACTA ADRIAT., 54(2): 241 - 251, 2012

Correcting mis - and under-reported marine fisheries catches for the Gaza Strip: 1950-2010

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²Sea Around Us Project, Fisheries Centre, University of British Columbia, 2202 Main Mall, Vancouver, BC, V6T 1Z4, Canada

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ACTA ADRIAT., 54(2): 253 - 264, 2013

Israel: Reconstructed estimates of total fisheries removals in the Mediterranean, 1950-2010

Dori EDELST¹, Aviad SCHEININ¹, Oren SONIN², James SHAPIRO²,
Pierre SALAMEH², Gil RILOV³, Yehuda BENAYAHU⁴,
Doron SCHULZ⁴ and Dirk ZELLER^{4*}

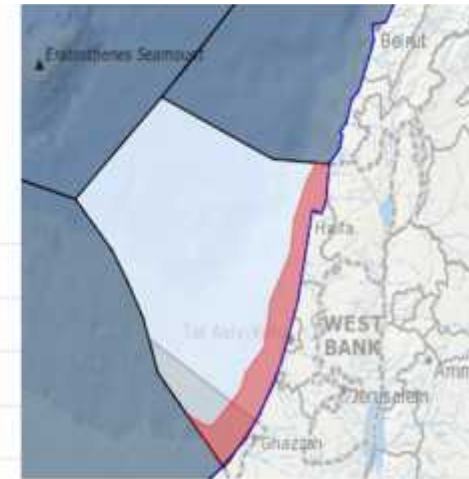
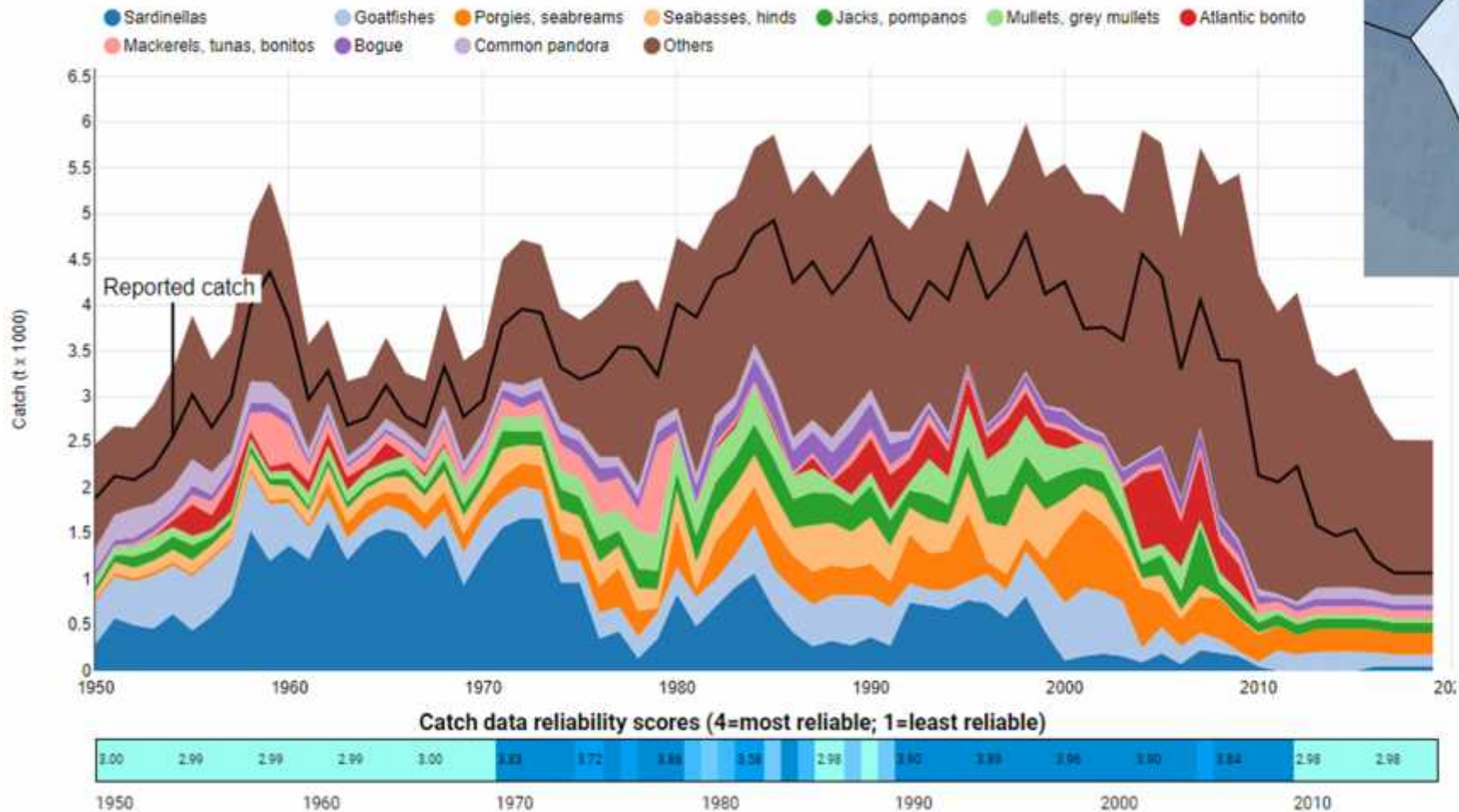
Amid Israeli Blockade on Gaza, a Fishing Fleet Limp Along

An Israeli blockade that restricts the movement of Gazans out of the strip and limits imports — or bans them completely — has been devastating for the enclave's fishing industry.

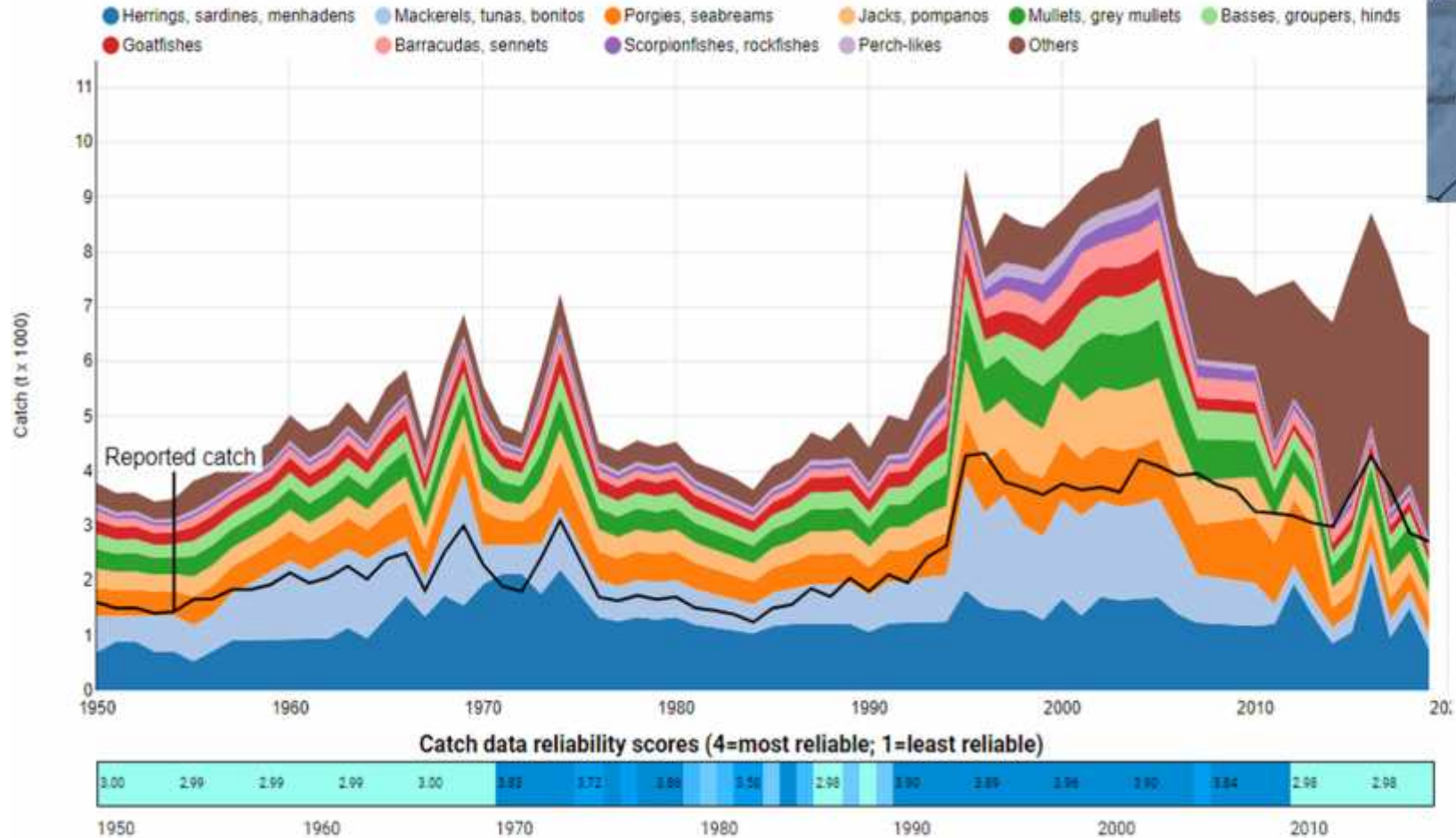


A Palestinian fisherman carrying his bounty after a trip out to the sea along the Gaza Strip. Credit...Samar Abu Elouf for The New York Times

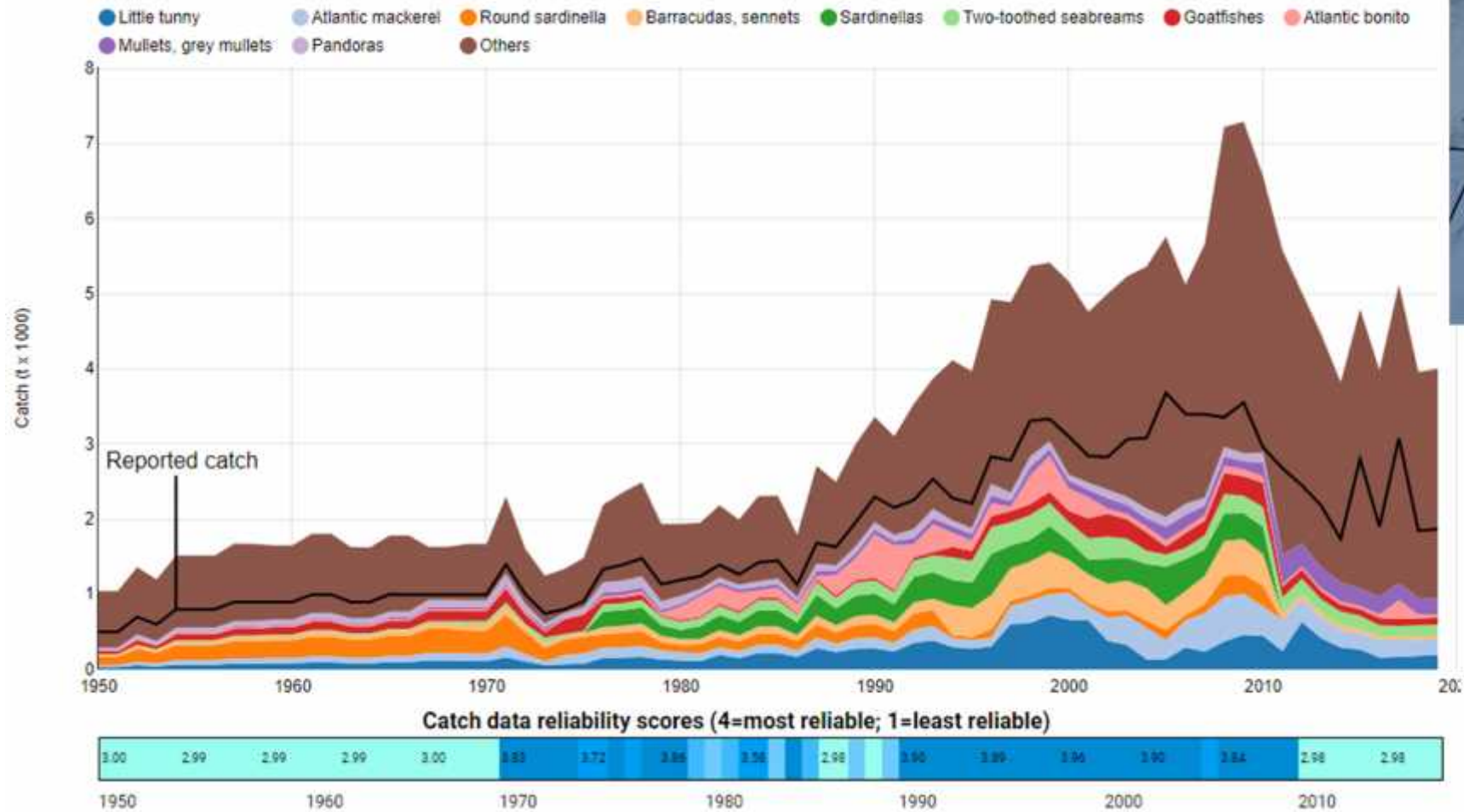
Marine fisheries catch of Israel in the Mediterranean, 1950-2019



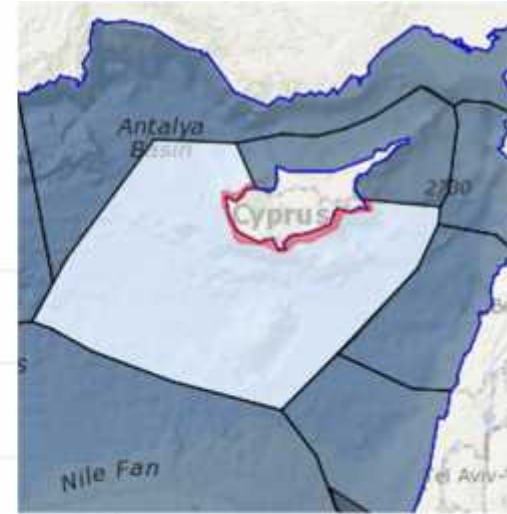
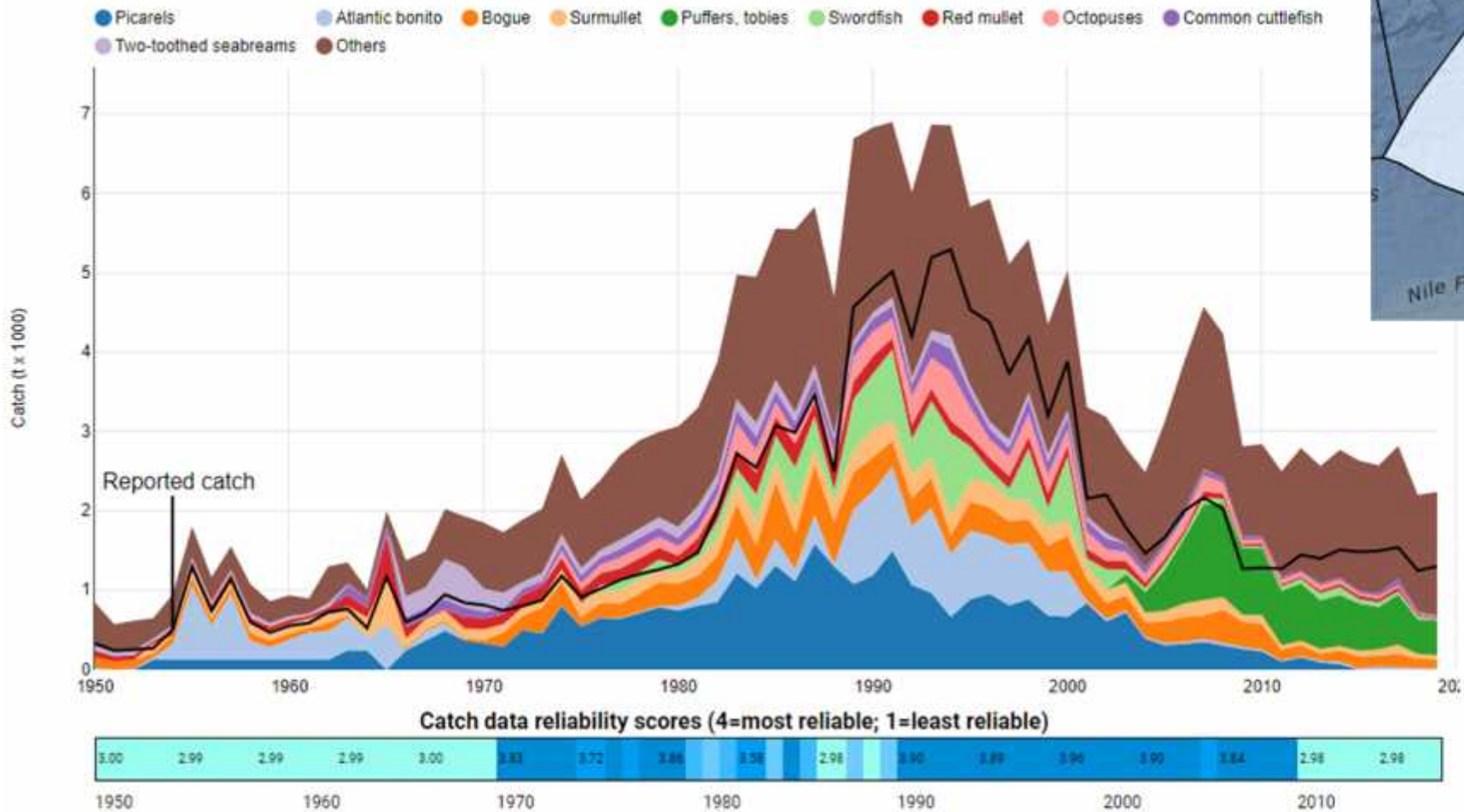
Marine fisheries catch of Lebanon, 1950-2019



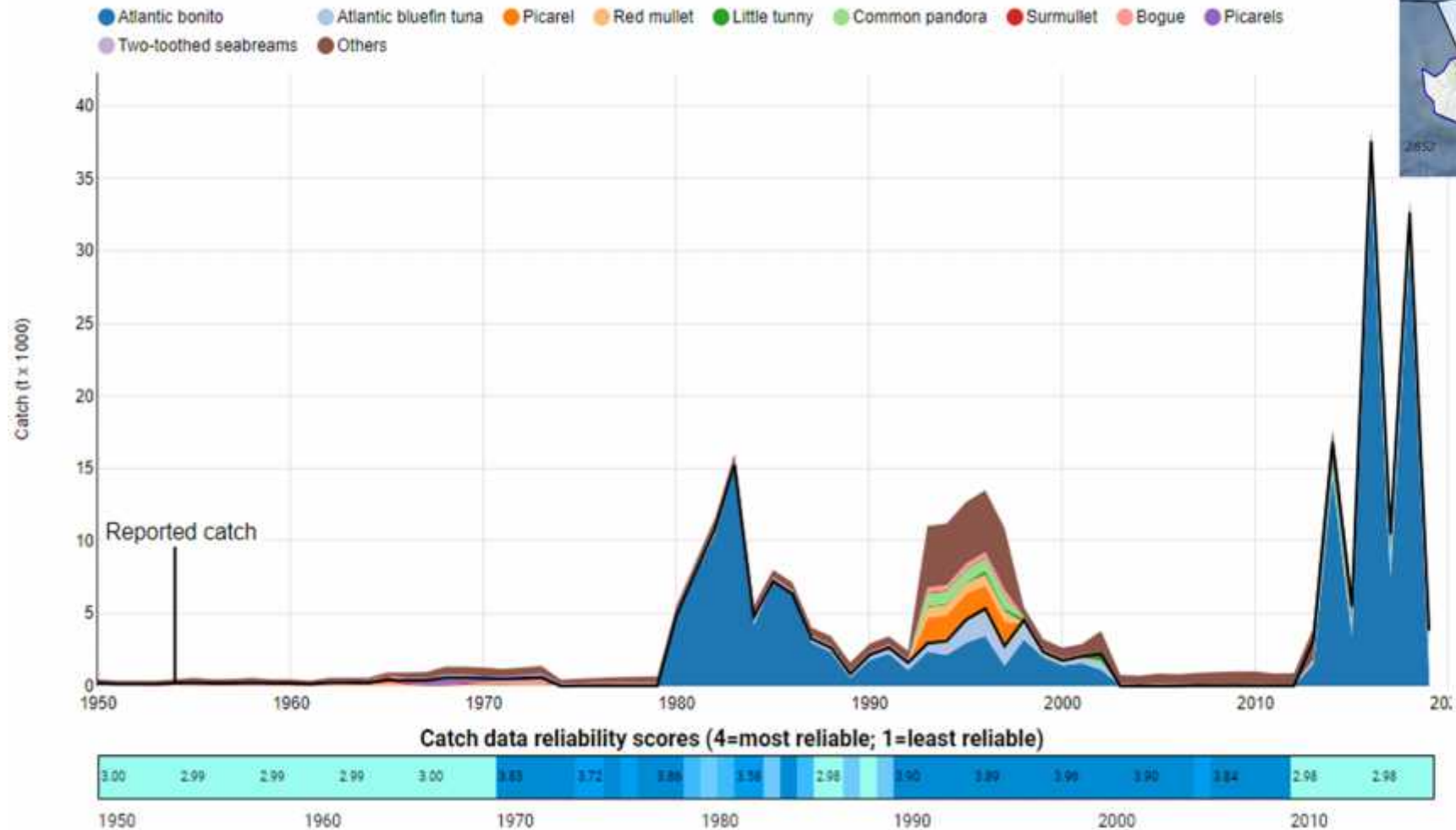
Marine fisheries catch of Syria, 1950-2019



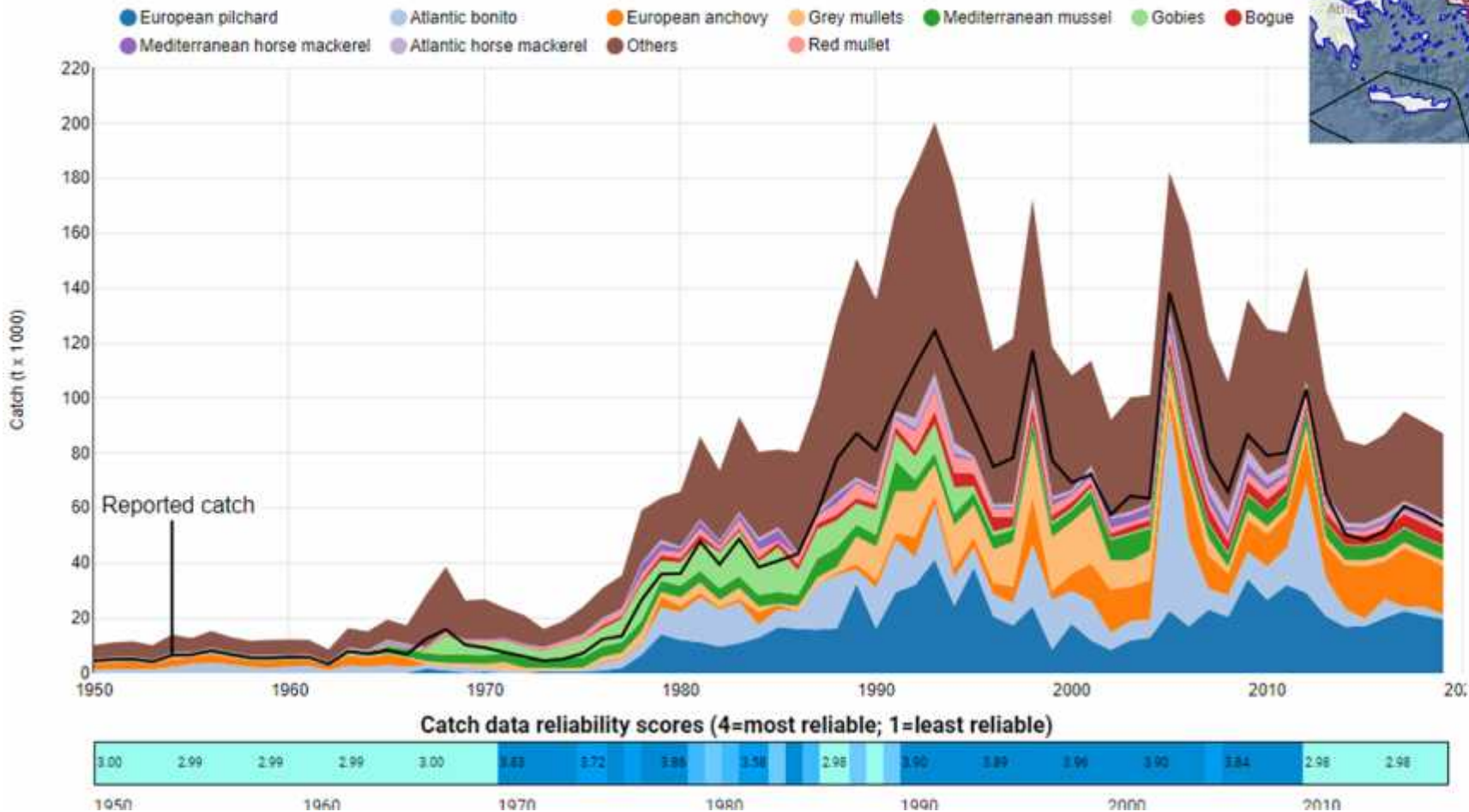
Marine fisheries catch of South Cyprus, 1950-2019



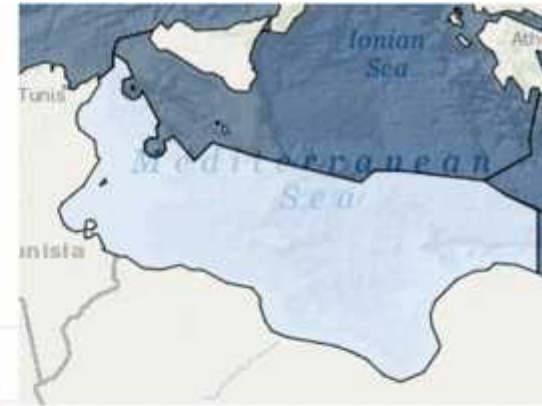
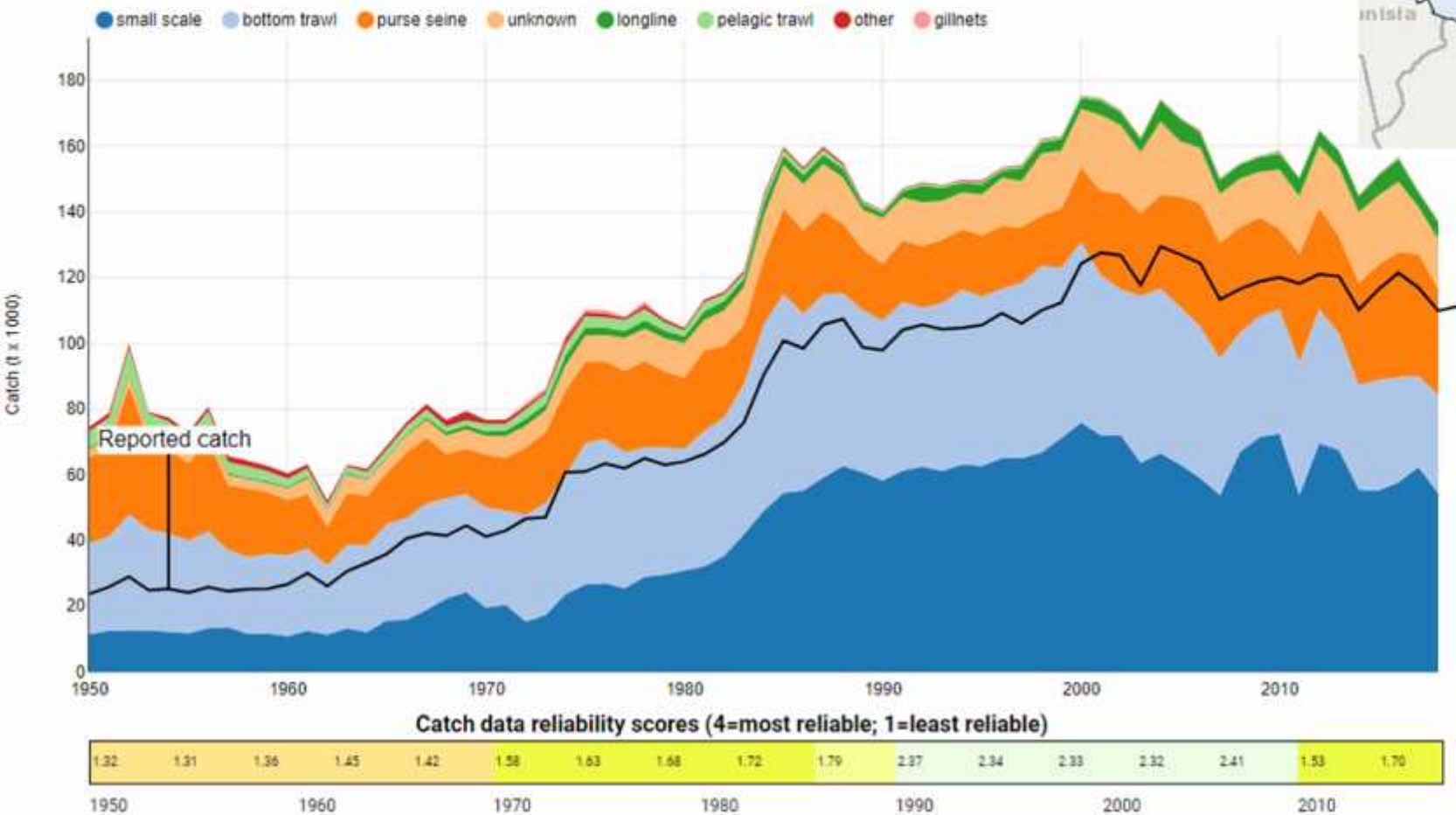
Marine fisheries catch of North Cyprus, 1950-2019



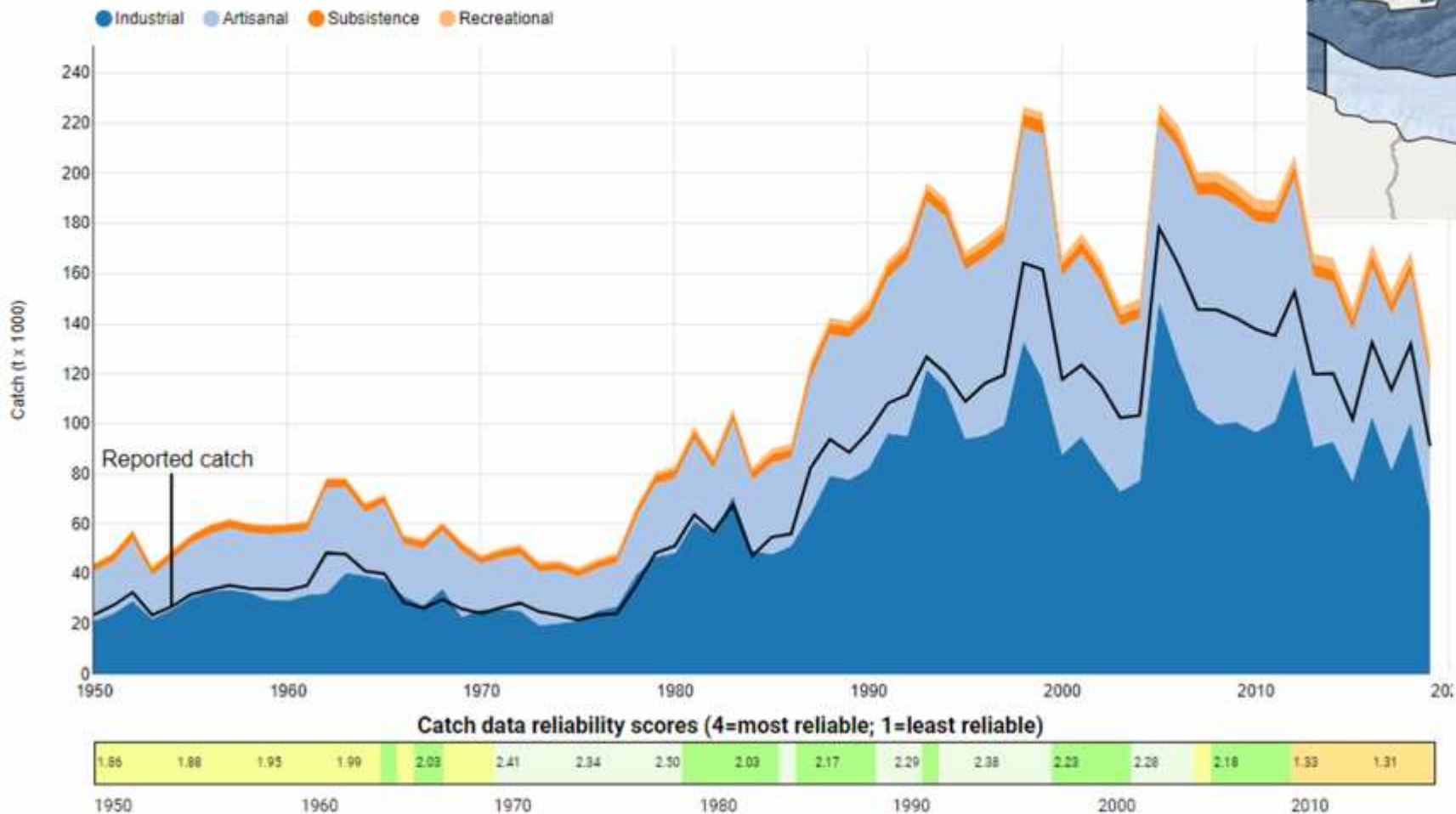
Marine fisheries catch of Turkey in in the Mediterranean, 1950-2019



Catch by fishing sector in the Tunisian Plateau – Gulf of Sidra Marine Ecoregion



Catch by fishing sector in the Levantine Sea Marine Ecoregion



The Levantine Sea is the part of the Mediterranean that best illustrates its future, which will be shaped by invasive species from the Red Sea

Ulman, A., S. Kalogirou, D. Pauly. 2022. The dynamics of maximum lengths for the invasive silver-cheeked toadfish (*Lagocephalus sceleratus*) in the Eastern Mediterranean. *Journal of Marine Science and Engineering*, 10, 387, <https://doi.org/10.3390/jmse10030387>



Summary:

- The Mediterranean has been fished for millennia, and it is now overfished;
- None of the Mediterranean countries is working toward rebuilding declining stocks;
- Invasive species from the Red Sea will be gradually replace native fish in the Mediterranean.

Further information on the fisheries of the Southern Mediterranean, or any other place, can be obtained from www.seaaroundus.org, or from me, at d.pauly@oceans.ubc.ca .