Protecting fish aggregations: Protecting our future

SCRFA
SCIENCE AND CONSERVATION OF FISH AGGREGATIONS

Large gatherings of mating fish – called spawning aggregations – are vital to marine biodiversity, food security and fisheries profitability. But they are threatened globally by overfishing. Governments, fishers and communities can act now to preserve them for everyone and safeguard food and jobs.

Spawning aggregations generate the young fish that sustain their populations.

▸ **They produce the fish that we depend on.**

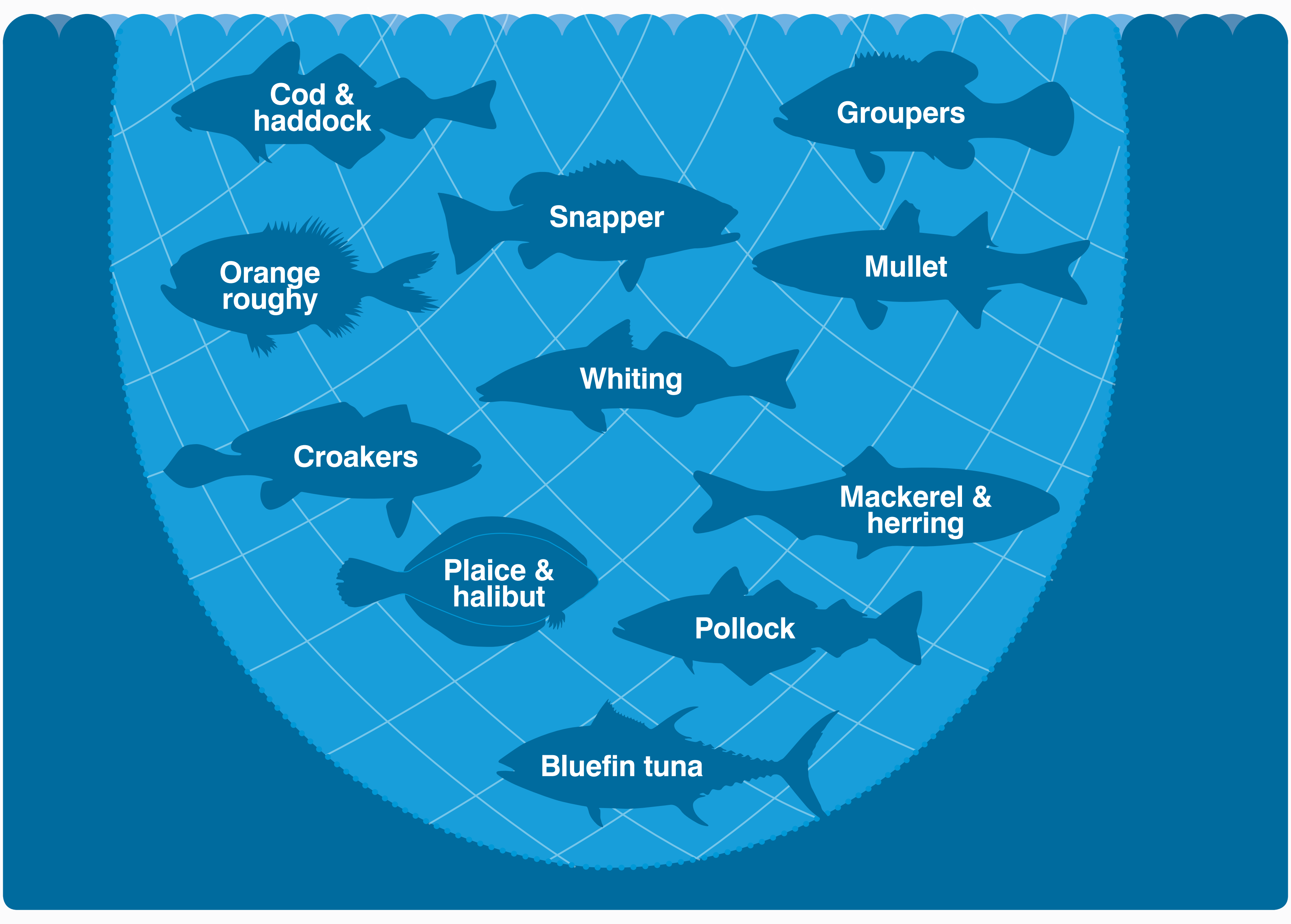
Aggregating fish return to the same areas to breed at the same times each year.

▸ **Their predictability makes them vulnerable.**

Aggregations can include all the adult fish in a population, making it very vulnerable to overfishing in a short time.

▸ **Overfishing can have devastating consequences.**

▼ Many major fisheries target fish that aggregate to spawn



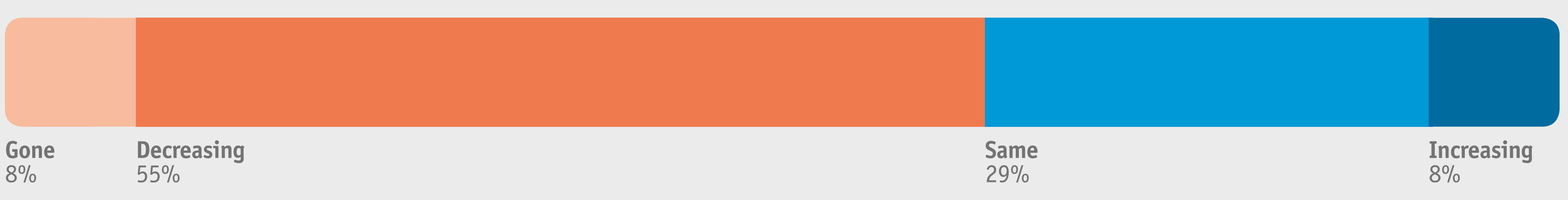
Declining fish stocks – devastation of aggregations

• Today, **76%** of **fisheries** are **fully exploited**, **overexploited** or **depleted**

▸ **50% of the most commonly caught fish globally are aggregating species**

Status of spawning aggregations

Of the 48% of 888 aggregations for which we have assessed their fishery status, we find:



Some fish stocks devastated by aggregation fishing

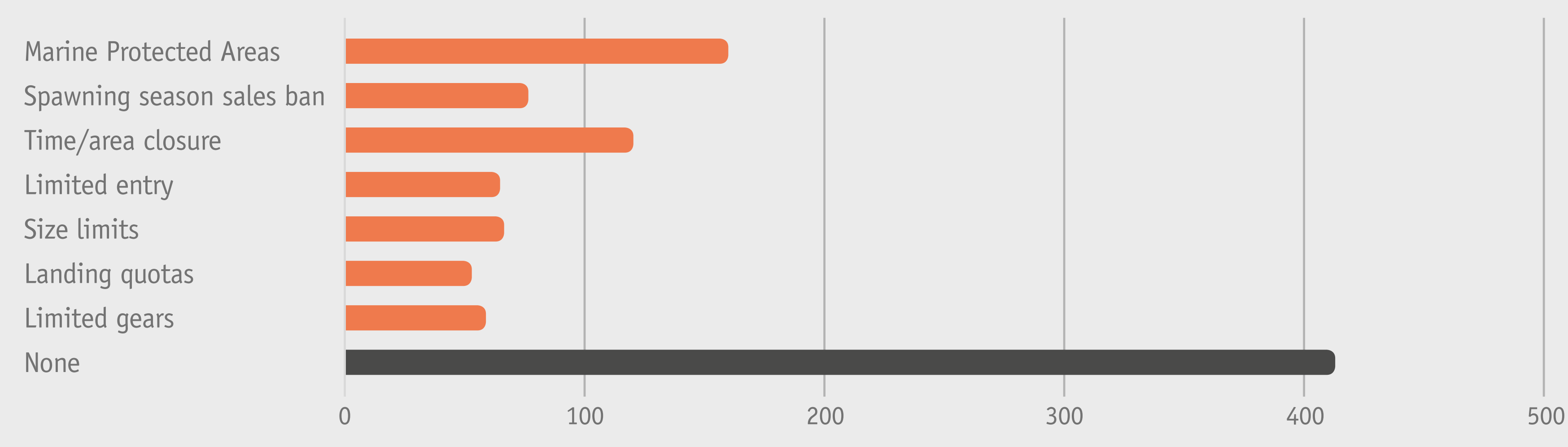
- Cod
- Seabream
- Orange roughy
- Yellow croakers
- Alaska pollock
- Groupers

90%

Catch of adult Nassau grouper in the Caribbean **has declined by as much as 90%,** largely due to **overfishing** of its spawning aggregations.

▸ **The fish is now globally endangered.**

Only one-third of global aggregations are managed*



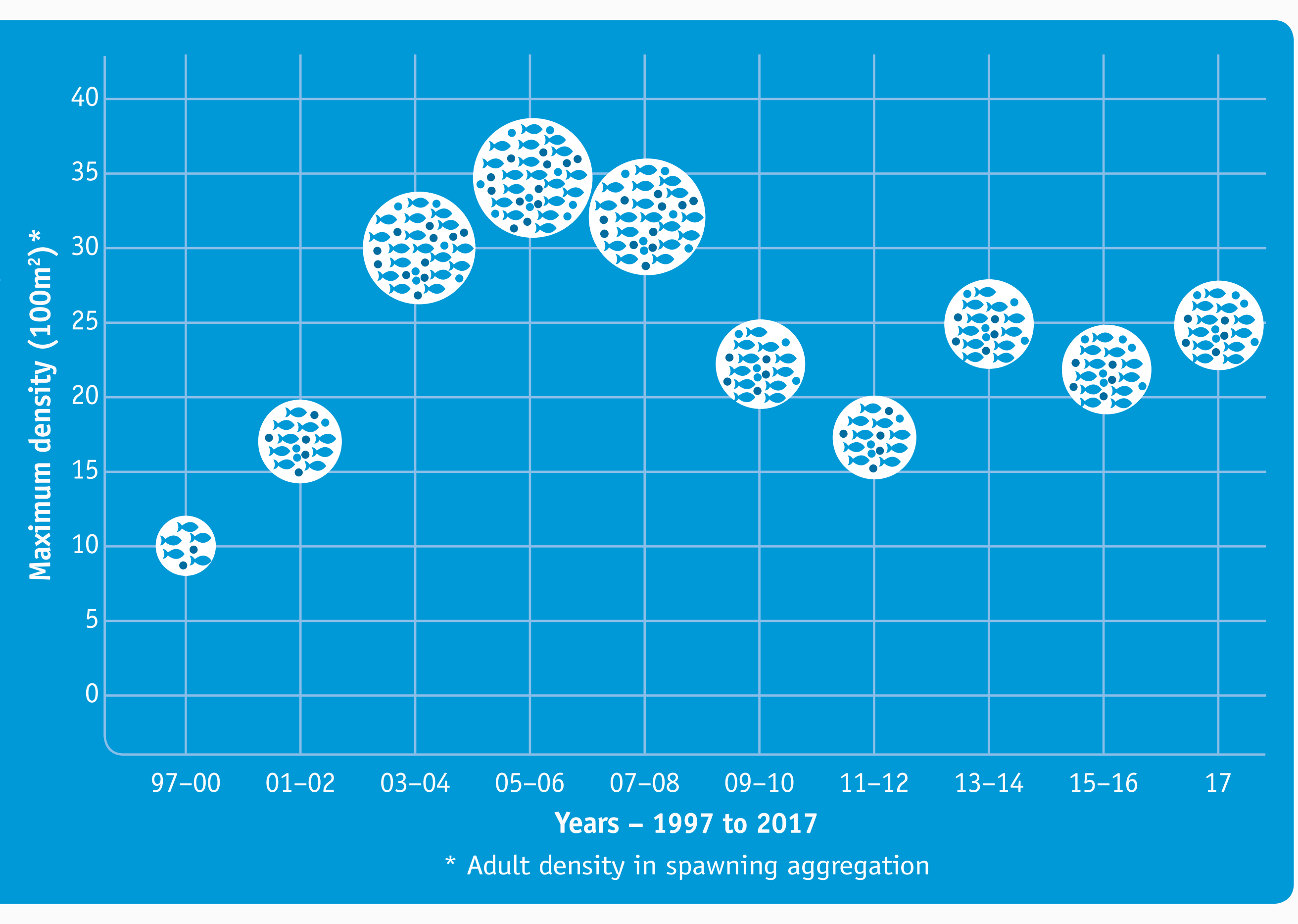
*A single aggregation can have more than one management measure applied. The data are for a total of 888 aggregations.

Protection works

Dramatic declines in red hind (grouper) catches in the 1990s led to spawning sites being protected in the Caribbean.

Since then:

- Spawning biomass increased by **60%**
- Spawning fish numbers increased by **400%**
- Fish landings increased
- Average size of landed fish increased



* Adult density in spawning aggregation

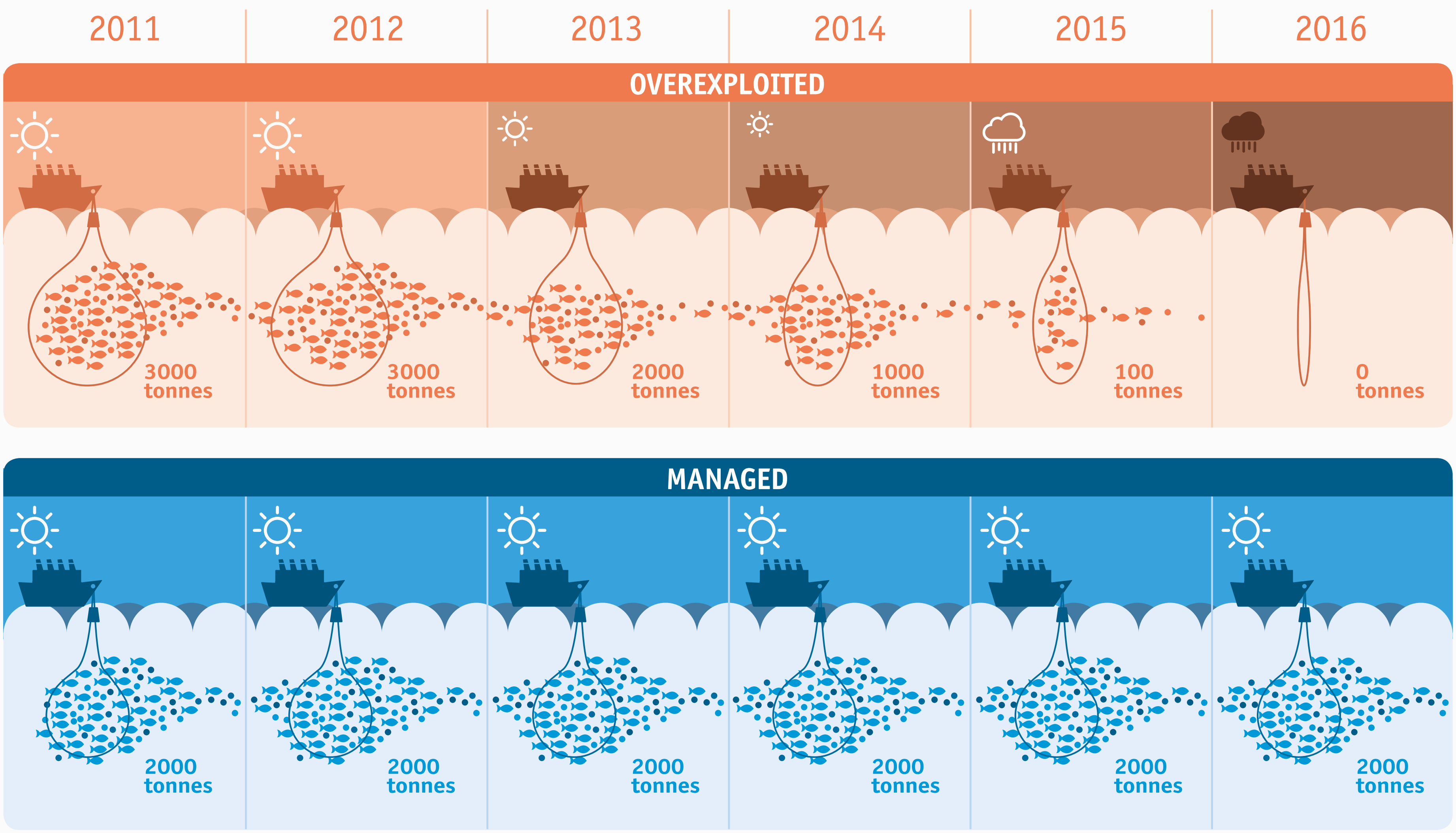
Managing spawning aggregations leads to…

profit · **food security** · **biological productivity** · **ocean health**

▸ The value of a healthy spawning aggregation can be **20 times greater** than the value of an overfished one.

▸ If all fisheries were fished sustainably, they would yield a **16% increase in global profit**, with **$36 billion more earned each year.**

Managing spawning aggregations protects fisheries from sudden collapse, whether small- or industrial-scale



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