Monitoring fishing activities of distant water fleet in a small-scale, multi-gear, multi-targeted species fishery: the case study of Saint-Paul & Amsterdam Exclusive Economic Zone

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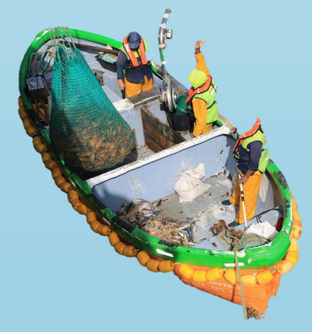
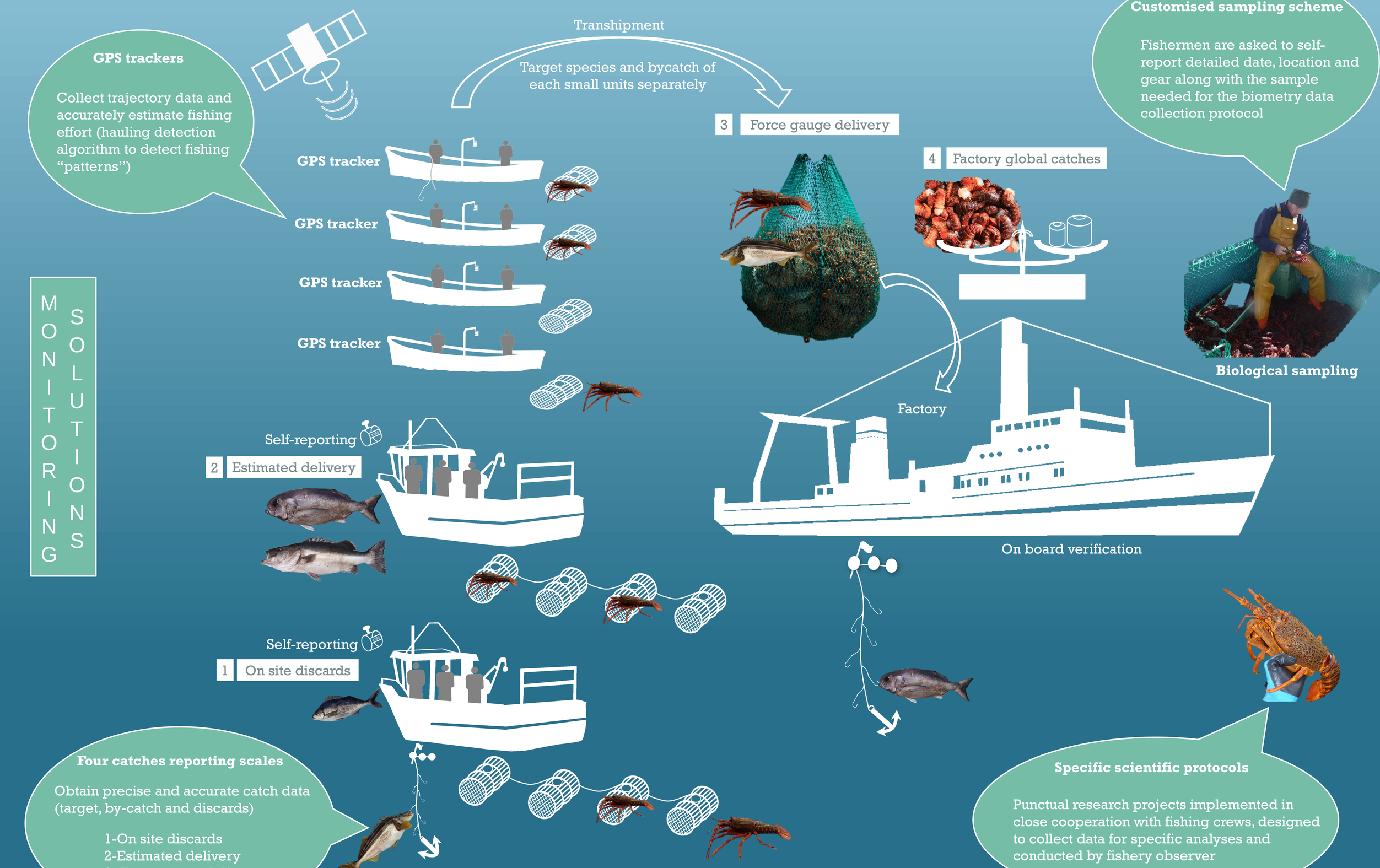


Fishery context

- **Nature reserve**.
- **Distant water fleet**: Saint-Paul & Amsterdam (SPA) EEZ in the southern Indian Ocean located more than 1 700 miles away from L'Île de la Réunion.
- **Multi-species**: rock lobster (*Jasus paulensis*) and demersal fishes (*Latris lineata*, *Hyperoglyphe antarctica*, *Polyprion sp.*) exploited annually since 1948.
- **Small-scale**: factory vessel + small fishing units (four 7.5m canots and two 8.5m caseyeurs).
- **Multi-gear**: individual traps, line of traps, handline, vertical longline, lift net.
- **100% fishery observer** coverage.
- Marine Stewardship Council (MSC) certification.
- 1 fishing season = 2 trips of 2 months = ~41 200 traps, 142 fishing days, 370 tonnes of rock lobster, 15 000 individual biometry.

Specific features of SPA fishery to be monitored

- ❖ Monitoring fishing effort on small fishing units (canots) by the acquisition of hauling positions.
- ❖ Monitoring catches (target, bycatch, discards) given the large number of small-size vessels and the fact that they cannot be linked to the precise position of their respective fishing operation.
- ❖ Collecting biological samples with the cooperation of fishermen due to the inability for fishing observers to be on board all small fishing units.
- ❖ In the absence of dedicated scientific campaign, SPA fishing vessels are the only available source of collecting data on ecosystems.



Benefits of monitoring solutions

- ✓ Mapping of the fishing effort of small fishing units (spatial distribution).
- ✓ High resolution monitoring of target species and bycatch, whether retained or discarded.
- ✓ Detailed data on biological sampling improving knowledge on life history traits (length distribution, sex ratio, maturity).
- ✓ Dedicated scientific protocols to improve knowledge on specific issues such as gear selectivity or sorting of undersized rock lobster.

Conclusion

- ➢ The Southern Fisheries Ecosystem Observation Program for the Saint-Paul/Amsterdam fishery is based on the "Ecosystem approach to Fisheries" paradigm.
- ➢ To monitor the impact of the fishery on target resources, bycatch species and marine ecosystem, the observation program relies on a high level of accurate data collection in terms of effort, catches, biological sampling and scientific protocols.
- ➢ It supports research activities, science-driven management decision and contributed to Nature Reserve designation and MSC certification.

Photo credit

Fishery observers

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