Participatory Lobster Monitoring Programme Survey 2025

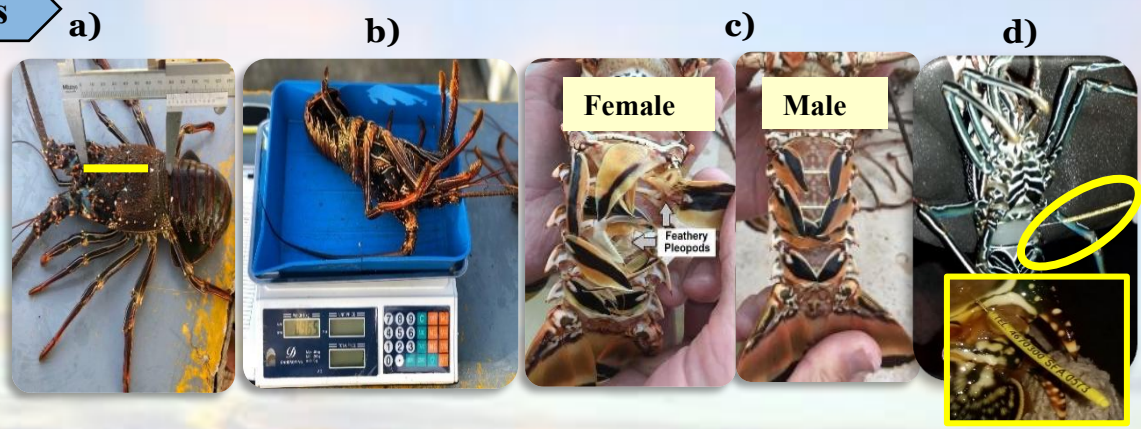
SEYCHELLES FISHERIES AUTHORITY

- Monitors abundance and recovery status of the local spiny lobster through several stock indicators.
- A total of 20 sites was surveyed.
- Comparison was made between the 2024 and 2025 PLMP surveys.
- Fishery was closed in 2023/2024 and 2024/2025 fishing seasons.

1. Data Collection Methods

Biological data collected by SFA are;

a) Carapace length (**mm**)
b) Weight (**g**)
c) Sex (**F/M**)
d) Tagging (tag **№** for recapture)



2. Total Lobster Sampled

- A total of **93 kilograms (kg)** of lobsters sampled compared to:
  - 59 kg in 2024.
  - Representing a 22% increase compared to the 2024 PLMP survey.
- Total kg per species:
  - 53 kg *Panulirus penicillatus* (Oumar gro latet)
  - 37 kg *Panulirus longipes* (Oumar rouz)
  - 3 kg *Panulirus versicolor* (Oumar ver)

  (**Figure 1**)
- 160 individual lobsters were sampled:
  - 62 *Panulirus penicillatus* (Oumar gro latet)
  - 89 *Panulirus longipes* (Oumar rouz)
  - 9 *Panulirus versicolor* (Oumar ver)

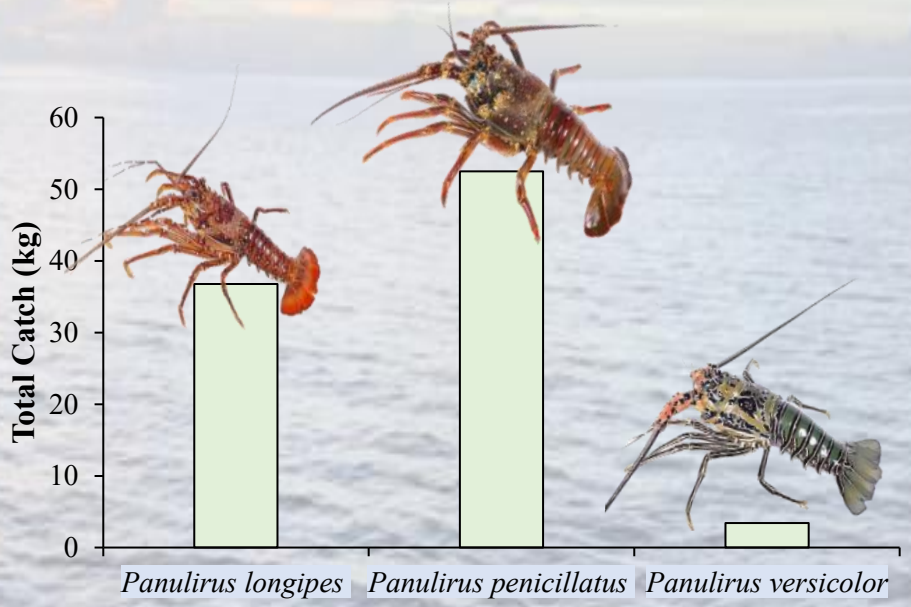


Figure 1: Total Catch (kg) per lobster species for the 2025 survey.

NOTE

2024 & 2025: directly comparable (same survey methodology).
2023 (CLS): not directly comparable (different survey methodology).

3. Catch Per Unit Effort

Catch per Unit Effort (CPUE)

• In 2025, lobster catches per menhour increased by 67% in weight and 16% in number compared to 2024 (**Figure 2**).

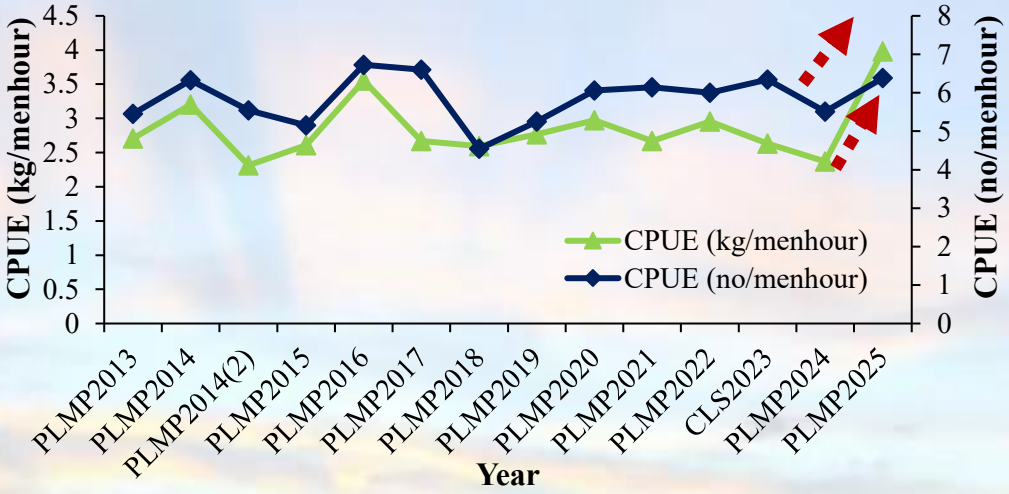


Figure 2: Average catch per unit effort at survey sites in kilogram/menhour and numbers/menhour for all lobsters (legal size and undersize) caught from 2013 to 2025. Red arrow highlights trend.

CPUE means how much fish you catch for the effort you put in.

4. Length Based Indicators

•**Figure 3** shows average length for *P. longipes* and *P. penicillatus* in 2025 and 2024 surveys.

Males:

- *P. longipes* increased by **0.35 cm**
- *P. penicillatus* increased by **1.17 cm**

Representing an increase of 4.8% and 12% compared to 2024.

Females:

- *P. longipes* decreased by **0.03 cm**.
- *P. penicillatus* decreased by **0.14 cm**

Representing a decrease of 0.4% and 1.7% compared to 2024.

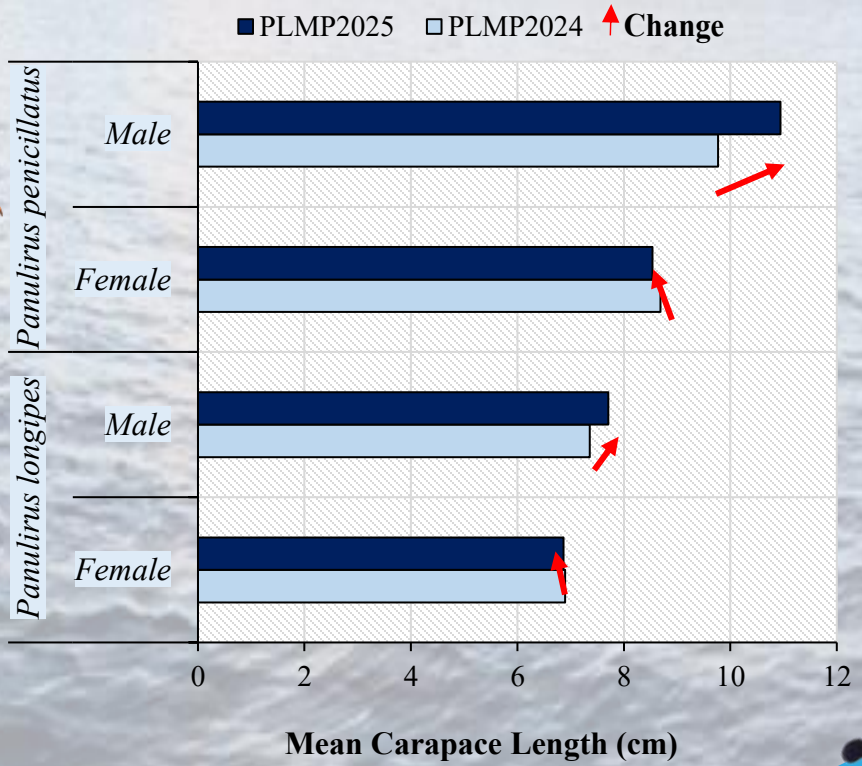


Figure 3: Average carapace sizes of *P. longipes* and *P. penicillatus* by sexes in 2025 and 2024 surveys.

5. Tagged spiny lobster

- 160 lobsters were sampled in 2025 compared to 132 in 2024.
- 148 individual lobsters were tagged, comprising (**Figure 4**):
  - **57%** legal size (> 7.5 cm)
    - **43 females**
    - **48 males**
  - **36%** undersize (< 7.5 cm)
    - **48 females**
    - **9 males**
- 7 lobsters were recaptured (tagged in a previous survey).
- 5 lobsters were not tagged due to the inability of the tag to securely grip the flesh.

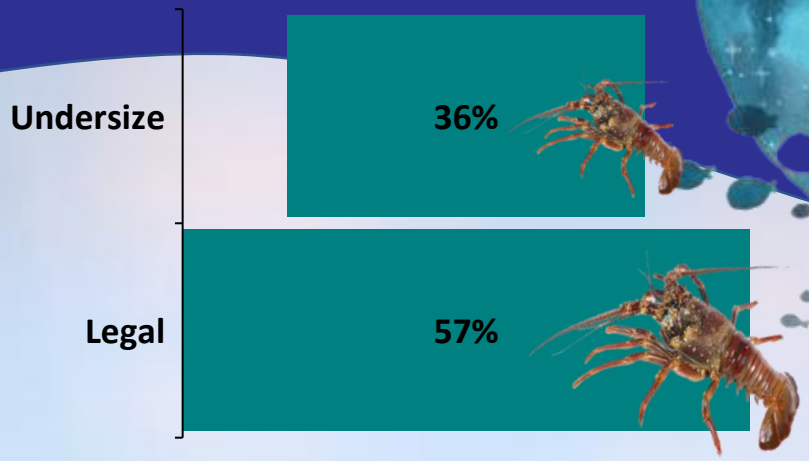
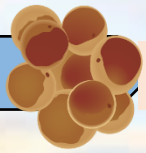


Figure 4. Percentage of tagged spiny lobsters in the 2025 survey.

6. Berried females



Eggs

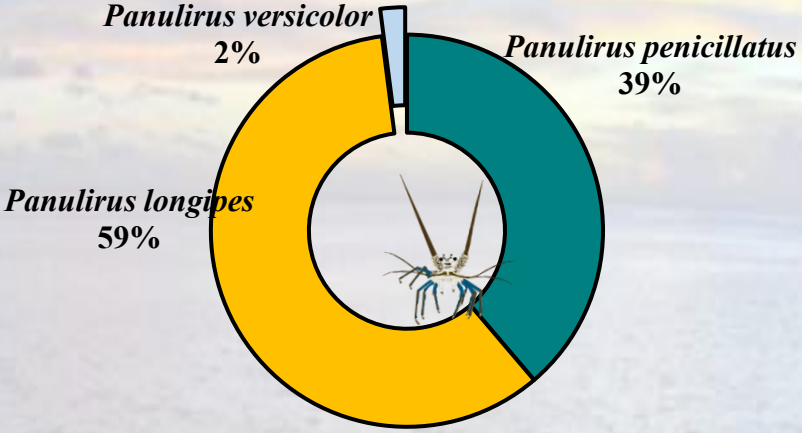


Figure 5. Percentage of berried females per species.

- Berried females consisted of **31%** (49 individuals) of the total catch.
- Berried females per species consisted of **(Figure 5)**:
  - **59%** *Panulirus longipes* (29 individuals)
  - **39%** *Panulirus penicillatus* (19 individuals)
  - **2%** *Panulirus versicolor* (1 individual)
- Carapace length (cm):
  - Smallest: **5.6 cm,** weighing 0.188 kg (*P. longipes*).
  - Largest: **10.7 cm,** weighing 1.042 kg (*P. penicillatus*).

Conclusion

- CPUE shows more lobsters and larger sizes, suggesting a possible improvement, but the changes are not statistically significant and may be due to natural variation.
- Recommend opening the 2025/2026 season with a cautious approach.
- Undertake stock assessment using fishery and survey data to improve stock and recruitment estimates.
- Monitoring and awareness will continue to support sustainable fishing.
- Develop harvest strategies to protect breeding lobsters and prevent support sustainable management.

OPEN FISHING SEASON 2026 FOR 3 MONTHS

The Research Department at the SFA would like to thank the fishers for their cooperation and valuable contribution during the 2025 PLMP survey. This study was an EU funded project.