

## Update on the Gene-tagging program 2024 and RMA request

CCSBT ESC 2024 paper 10 Ann Preece Sept, 2024



Australia's National Science Agency

# Fishery independent estimate of absolute abundance of juveniles

- DNA provides individual fish ID 'tag'
  - 'Tag' and release alive into the wild > 5,000 fish, age 2
  - Sample from commercial catch, > 10,000 fish, age 3 (1 yr later)
  - Compare DNA of fish released and in harvest sample
  - Match is a 'recapture'

 Tags are invisible, no shedding, last forever, no reporting rate estimates





#### Recent tissue collection

- 2022 tagging and 2023 harvest:
  - 5000 tagged, 15,000 harvest samples
  - Genotyping delayed
  - Abundance estimate delivered in next few weeks.
- 2023 tagging and 2024 harvest:
  - 3000 tagged, 15,000 harvest samples
  - DNA extraction underway
  - Abundance estimate on time April 2025 data exchange
- 2024 tagging:
  - 3700 tagged
  - Plan for 2025 harvest sampling: 15,000 fish



### Update on progress

YEAR OF TAGGING (Y)	AGE AT TAGGING	N RELEASES	N HARVEST (IN Y+1)	N MATCHES	ABUNDANCE ESTIMATE (MILLIONS)	CV
2016	2	2952	15389	20	2.27	0.224
2017	2	6480	11932	67	1.15	0.122
2018	2	6295	11980	66	1.14	0.123
2019	2	4242	11109	31	1.52	0.180
2020	Interrupted by Covid-19				-	-
2021	2	6401	10742	41	1.68	0.162
2022	2	5000	15000	-	To be delivered in late 2024	-
2023	2	3000	15000	-	To be delivered in early 2025	-
2024	2	3700	-	-	To be delivered in early 2026	-



#### Data for the MP and OMs

- The 2022 and 2023 estimates of abundance will be available as planned for use in the CTP in 2025
- The 2024 estimate will be available for the 2026 assessment of stock status







### Thank you

#### **CSIRO Environment** Ann Preece Team Leader Pelagic Population Dynamics and MSE

+61 3 6232 5336

ann.preece@csiro.au csiro.au

The gene-tagging program funded by the CCSBT and CSIRO.

Australia's National Science Agency