

# Juvenile Bream and Seagrass

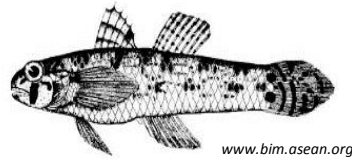
Gippsland Lakes 2015



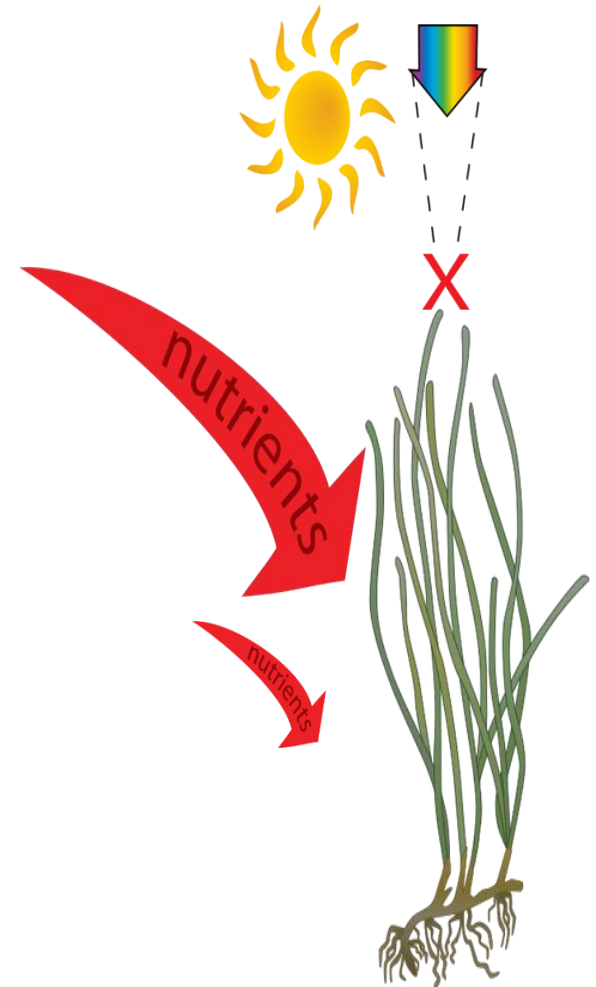
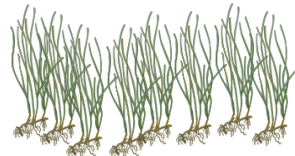
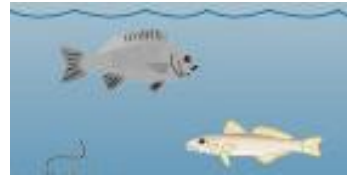
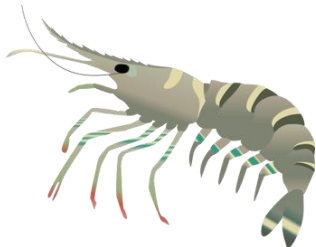
# Acknowledgements

- Gippsland Lakes Ministerial Advisory Committee
- Australian Research Council
- Adrian Kitchingman (ARI)
- Paul Reich (DELWP)
- Perran Cook, Ryan Woodland, Jeff Walker (Monash)

# Background - Seagrass

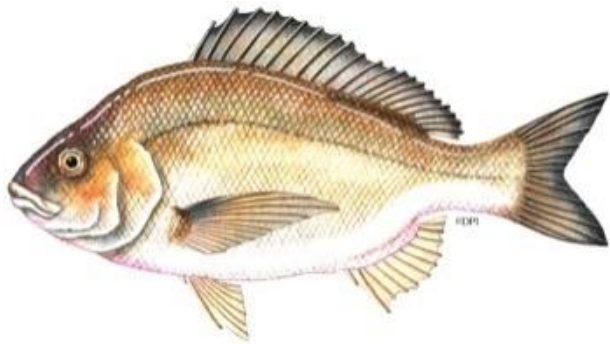


[www.bim.asean.org](http://www.bim.asean.org)

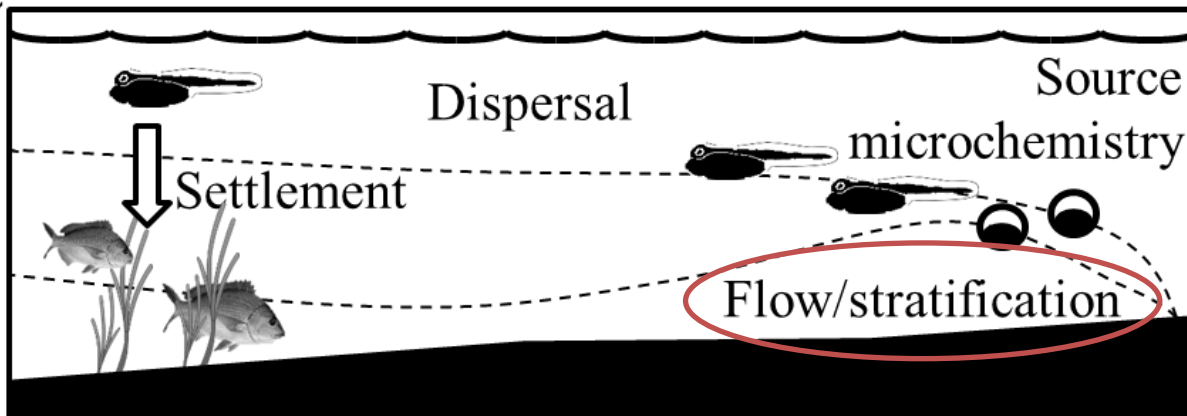




# Background – Black Bream



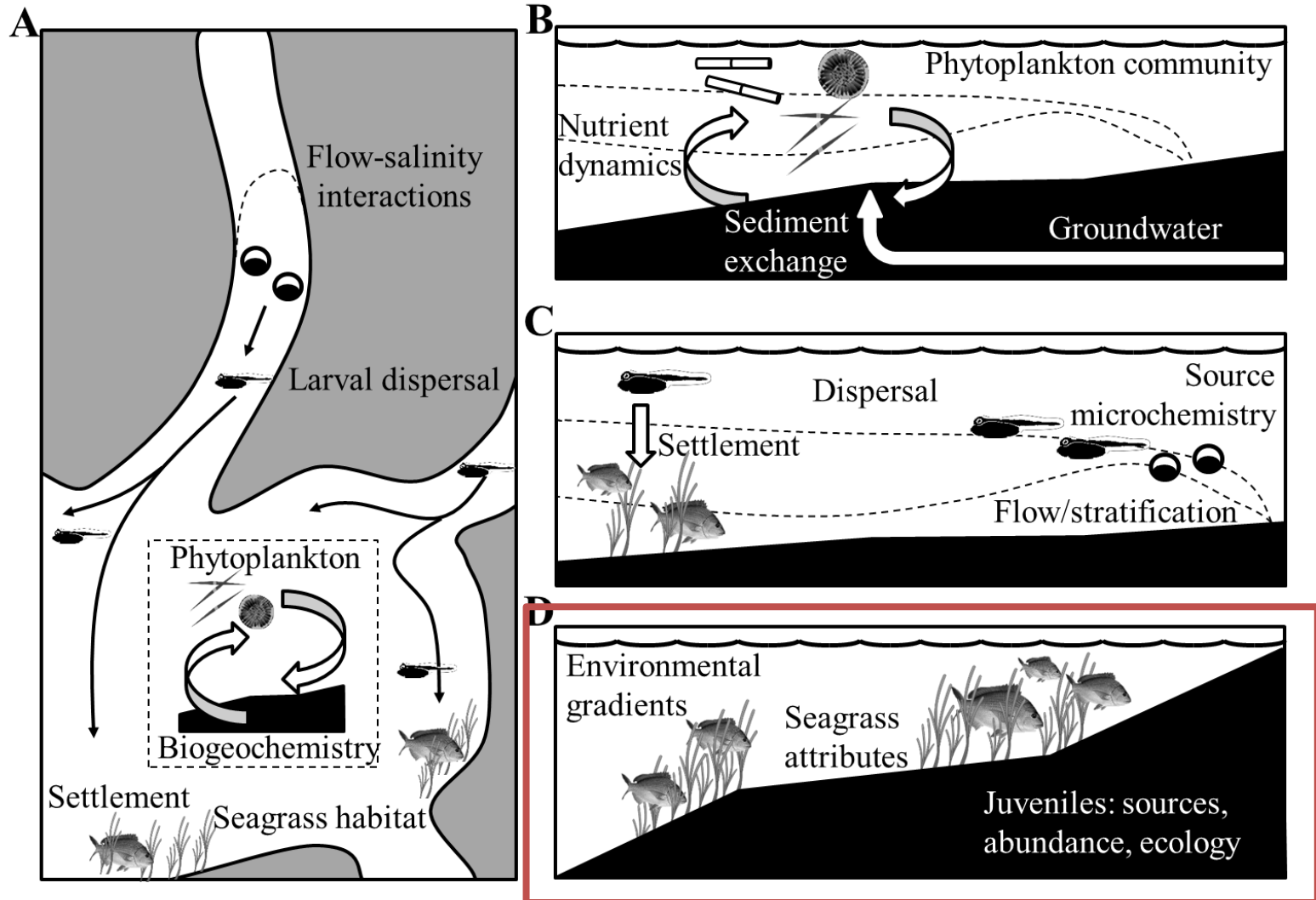
Jeremy Hindell



Joel Williams

Greg Jenkins

# Current Project Rationale



# Questions

1. Extent and condition of seagrass in the GL
2. Abundances and distributions of juvenile bream
3. Relationships between seagrass and juvenile bream

# Seagrass Mapping in the Lakes

## Previous Mapping of Gippsland Lakes Seagrass

Ralph Roob and David Ball 1997

- Examining changes in seagrass
- Mapping distribution of seagrass  
Aerial photography and manual delineation

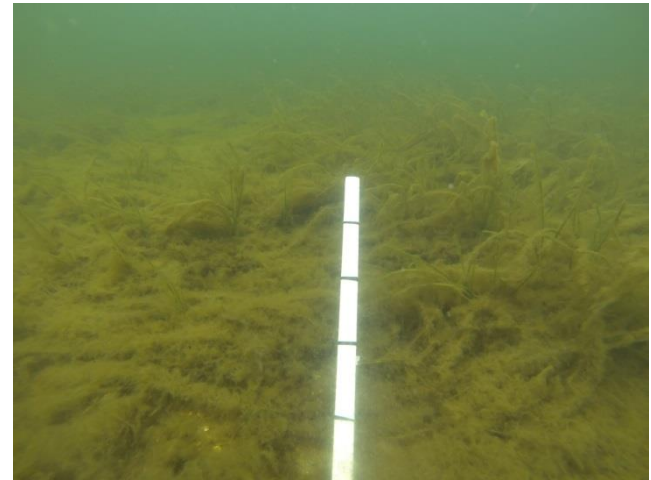
## 2015 Mapping of Gippsland Lakes Seagrass

- Seagrass extents for areas covered by aerial imagery  
Manual delineation
- Ground truthing via field sampling
- Using Roob and Ball classifications:

Classifications
Zostera, Ruppia or Mix
Dense, Medium or Sparse coverage
Epiphytic algae coverage or not

# Field sampling

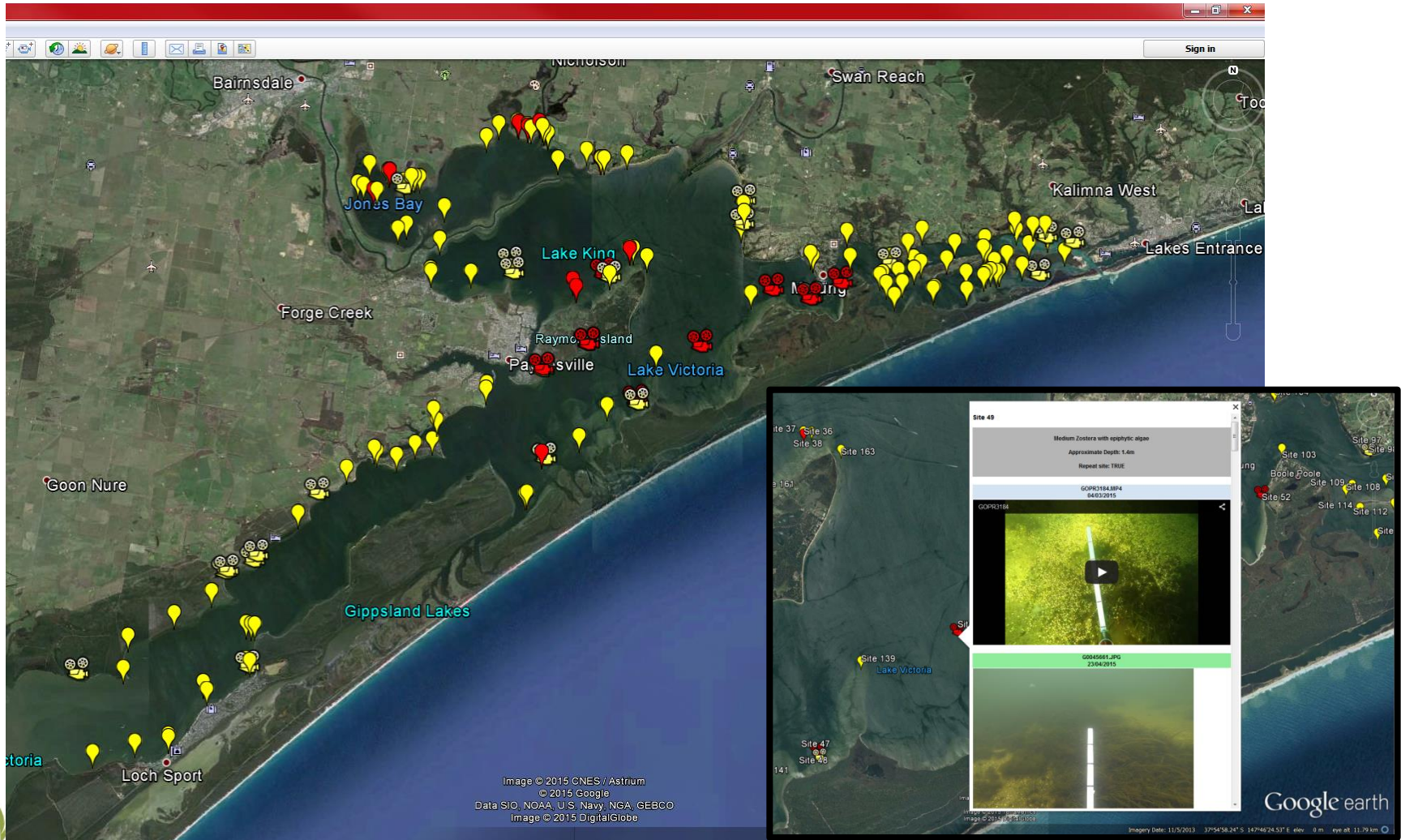
- Site coordinates are collected and images and/or video are taken using a pole mounted GoPro
- 181 sites sampled



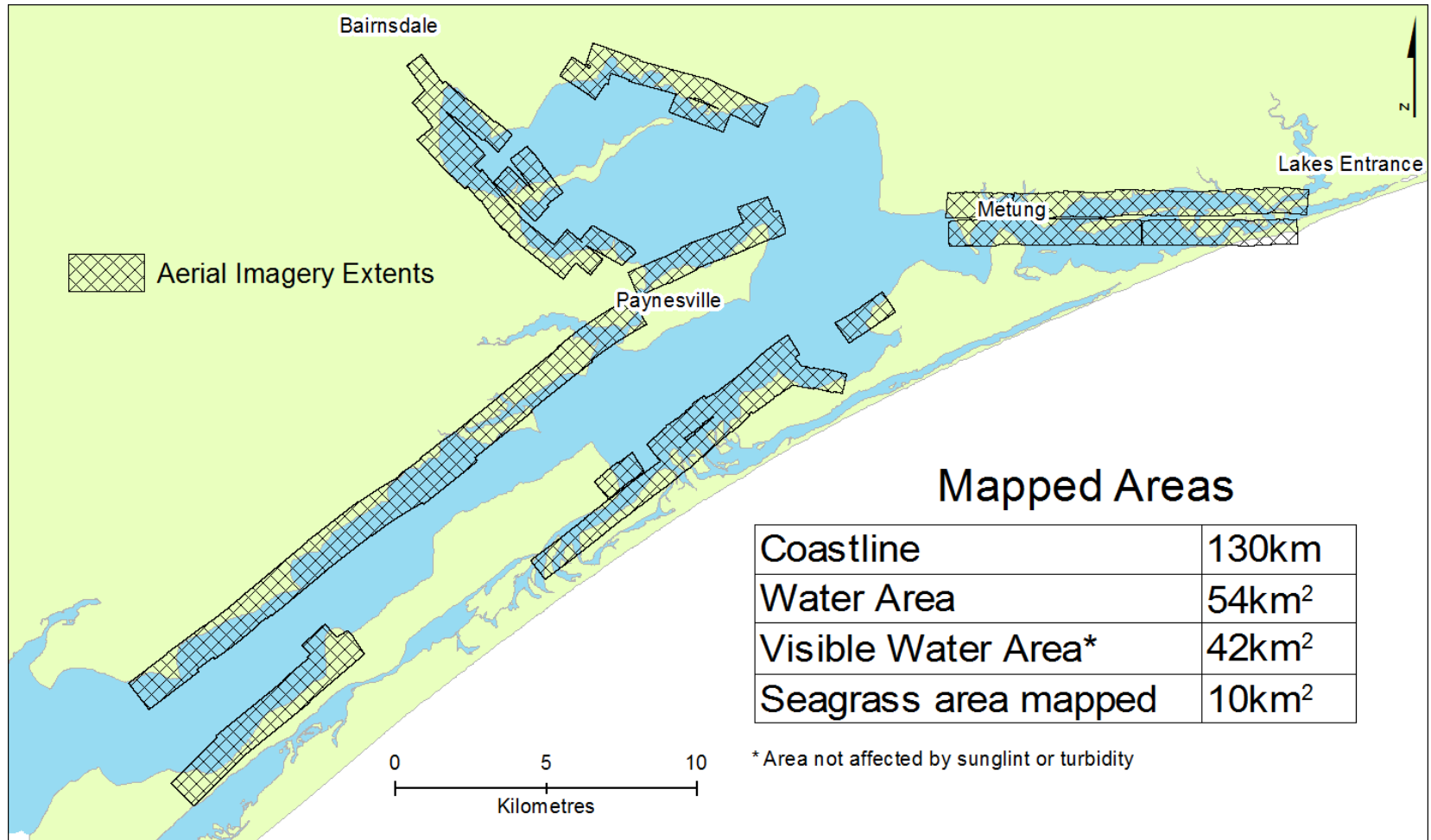


# Field sample mapping

Field footage is post-processed to produce a KML file for GoogleEarth



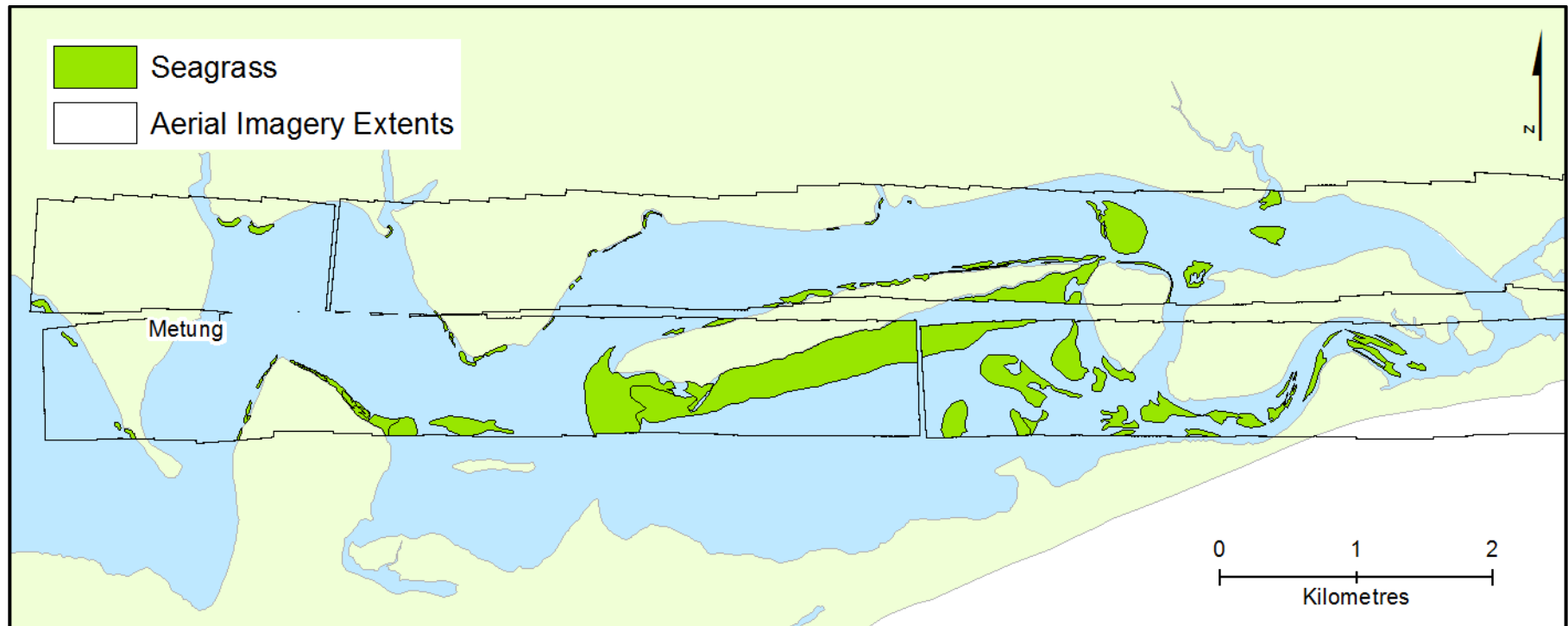
# Aerial imagery



Loch Sport area not mapped this round due to sunglint

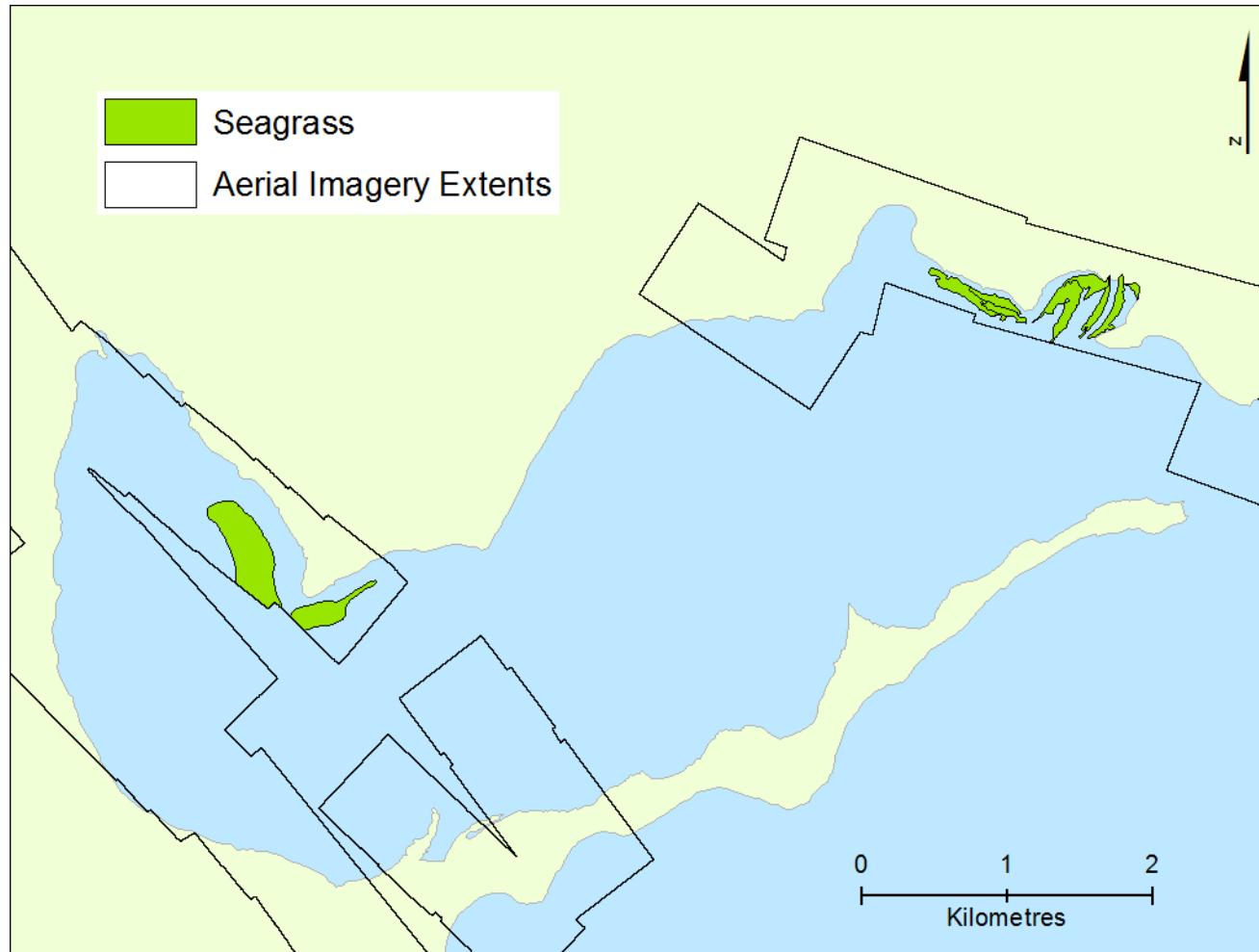
# Mapping so far

## East of Metung



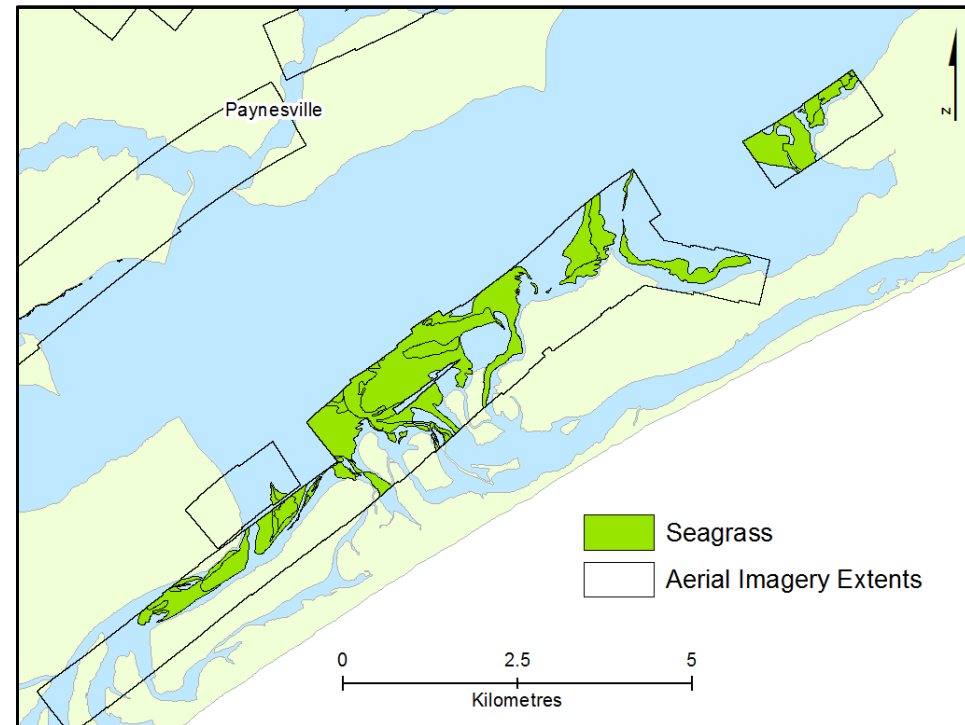
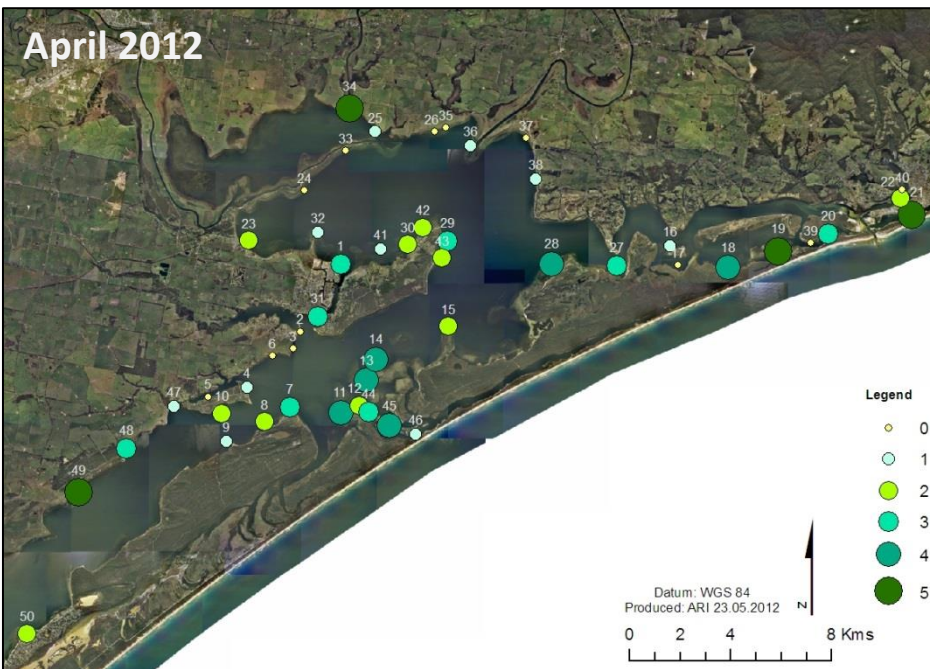
# Mapping so far

## Jones Bay





# Mapping vs rapid assessment





# Next steps

- **Link classified field data to mapped seagrass**
- **Recapture aerial imagery over areas unable to be mapped**
- **Further field sampling in February**
- **Refining/correcting mapped seagrass**

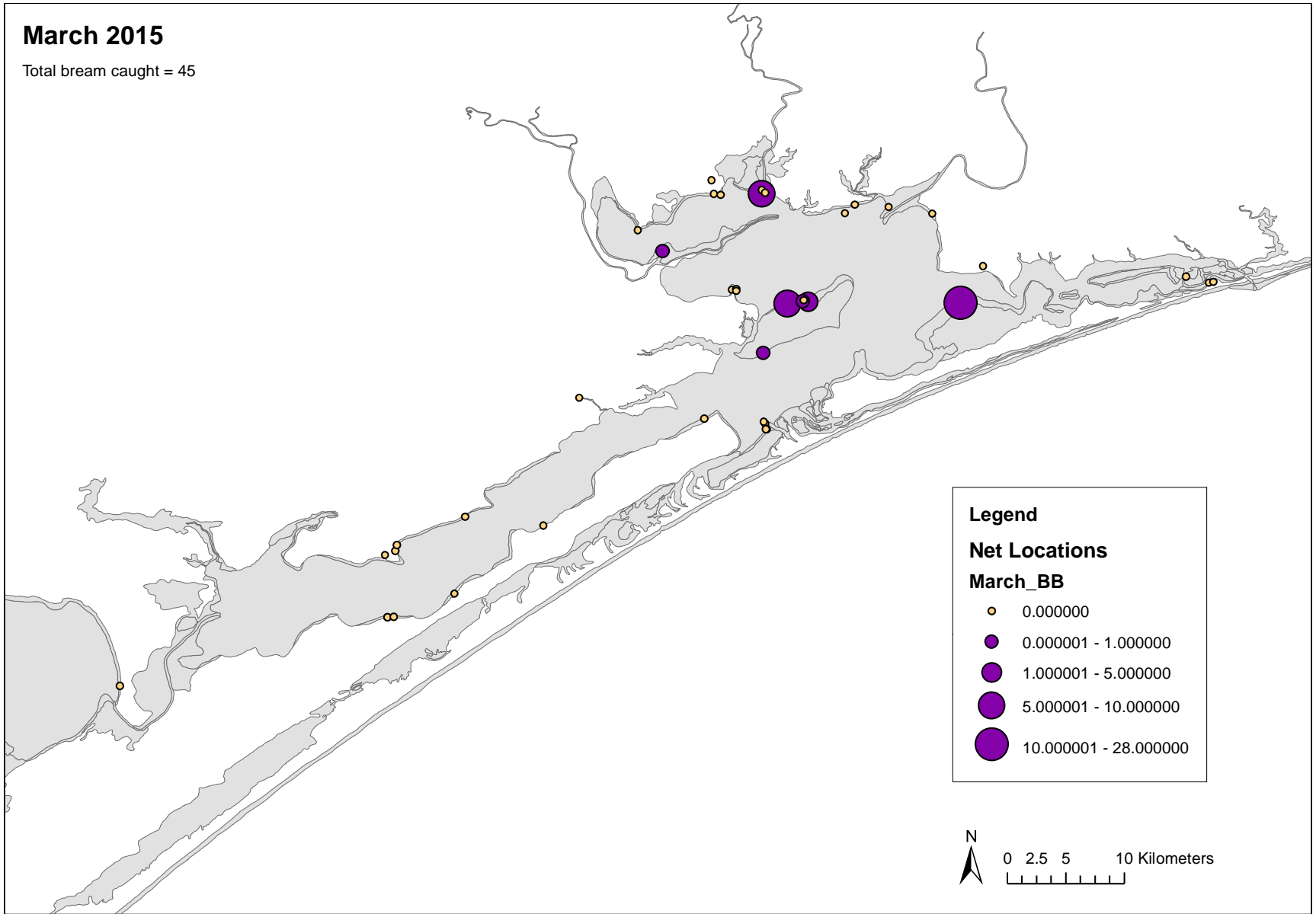
# Juvenile Bream Sampling



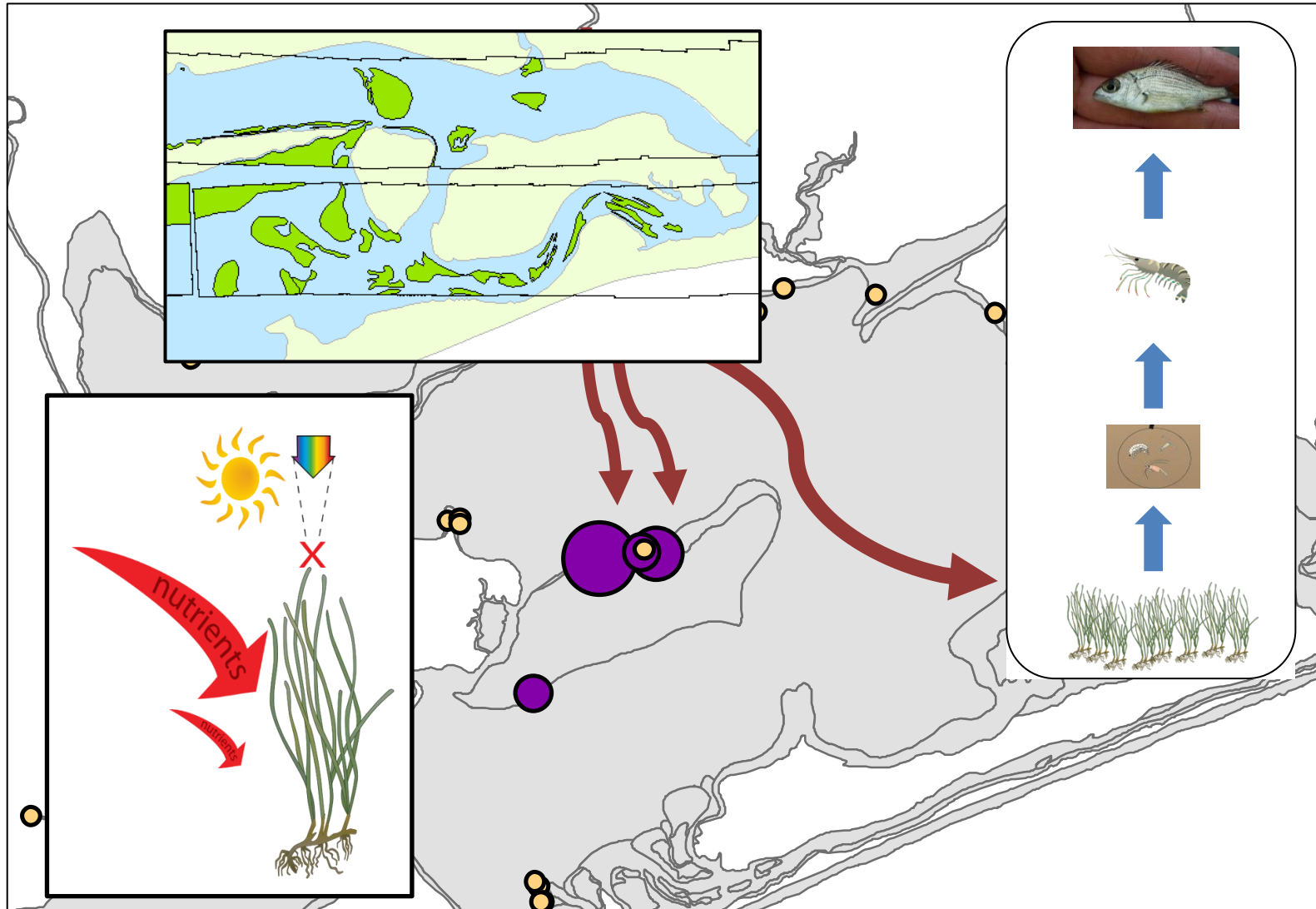
# Juvenile Bream Distributions

**March 2015**

Total bream caught = 45



# Juvenile Bream Distributions





# Questions?

