Fish and invertebrate faunas in Kimberley estuaries

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Photo Courtesy of M. Travers
Project outline

- Proposed 3 year research project on the fish and invertebrate faunas of select Kimberley estuaries.

- Undertaken with WA DoF as part of their monitoring program of aquatic resources in Camden Sound Marine Park (CSMP).

- Major objectives:
  - Characterise the major spatial and temporal (wet vs dry seasons; tidal cycles) differences in fish, benthic invertebrate and zooplankton faunas in select estuaries.
  - Examine the age, growth and reproductive biology of key fish species in these estuaries.
  - Work with traditional owners to produce an integrated synthesis of knowledge for these estuarine fauna.
  - Devise reliable and cost-effective programs for monitoring these faunal groups into the future.

Knowledge-building & linkages

Additionally, this project will enable:

- **Comparison of north-west vs south-west WA estuarine faunas, promoting State-wide understanding.**
  - Murdoch’s CFFAER has >30 yrs experience and historical data in the latter region.
  - NW presents the ‘polar opposite’ to the SW in many respects, e.g. tidal range, estuarine geomorphology, projected climate change impacts, human impacts.

- **Rare chance to quantify & track estuarine health status from pristine state.**

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Hallett et al. (2012)
Knowledge-building & linkages

- **Integration with other research projects, e.g.**
  - Other fish/invertebrate work in adjacent marine waters (e.g. DoF CSMP monitoring) or freshwaters (e.g. Murdoch’s Freshwater Fish Group, WA Museum).
  - Benthic habitat mapping projects.
  - Ecological connectivity & processes examining catchment to coast pathways.
  - Collating and integrating indigenous knowledge.

- **Greater collaborative partnerships among research, management and community sectors.**