Indigenous Fisheries Data

Why Collect Indigenous Fisheries Data

- Australia's Indigenous population is relatively small (3.3% of total population)
- Importance of fishing to Indigenous Australian's is greater than their numbers because:
  - one of the oldest continuous cultures in the world
  - fishing is deeply rooted in Indigenous Australian culture
- It is important to collect information of Indigenous fishing to ensure
  - fisheries resources of importance to Indigenous communities are well managed
  - development of policies to effectively address socio-economic problems
  - more / better data will result in greater security and access for community

Indigenous Fishing Surveys in Australia

- Early surveys of Indigenous fishing in Australia were community or regional based (e.g. Torres Strait)
- Data collected included
  - Catch by harvest method (1991-1995)
  - Demographic data of participants (including families, culture, health, housing, education, employment, law and justice) (1994-1995)
- An Indigenous subsistence fishing kit produced to collect catch and effort data in northern Qld (1998)

The National Recreational and Indigenous Fishing survey (2003)

- Aims included
  - To quantify fishing activity by indigenous fishing communities in northern Australia
- Results
  - Estimated 37,000 Indigenous fishers in northern Australia on about 420,000 days during the year
  - This was a participation rate of 91.7%
  - Line fishing and hand collection most common methods
  - About 3 million aquatic animals caught, mostly
    - Shellfish (mussels, oysters)
    - Finfish (mullet, catfish, seaperch/snappers, bream, barramundi)

Indigenous Fishing Surveys in Australia

- A survey of customary fishing of sharks and stingrays Groote Eyland (Saunders and Carne, 2010)

- In partnership with the Anindilyakwa Sea Rangers and the Anindilyakwa Land Council

- Culturally sensitive post for data collection with local names

- Incorporated into weekly school curriculum

Indigenous Fishing Surveys in Australia

- Aboriginal fisheries in New South Wales (Schnierer, 2011)
- Focused on the Tweed River catchment and the Minjungbal people
- Aimed to
  - Species of cultural significance
  - Quantify catch and effort by species
  - Develop capacity for ongoing monitoring and other fisheries research
- Method
  - Face to face questionnaire (recall over 12 months)
  - Logbook to validate recall
  - Focus group and individual interviews for info on cultural fishing practices, fishing values and community aspirations.

Indigenous Fishing Surveys in Australia

- Recreational fishing survey for Mulloway in the Yalata IPA (Rogers et. al., 2014)

- In partnership with Natural Resources Alinytjara Wilurara and Yalata Land Management staff and volunteers

- Demographics, catch, effort, area fished, species, fate, size, sex, otoliths, tissue samples

Australian Indigenous Fishing Surveys

- A mobile App being developed by Narungga Nation under the Buthera Agreement (current)

- Collects data on priorities and issues of importance

- Ensures compliance with terms of Buthera Agreement

- Allows self management of their own Sea Country in a sustainable manner

Issues with Collecting Indigenous Fisheries Data

- Scarcity / remoteness of participants and diversity of access points
  - Many surveys are targeted at focal points such as boat ramps
- Lack of licence / register of fishers
  - Many surveys rely on a register of fishers contact details
- Lack of technology / internet/ phone network access
  - Collection of real time data could be limited
- Cultural responsibilities can bias data
  - e.g. collections of large numbers of abalone for cultural event
- Distrust in collecting and providing data
  - What will happen to the information collected

Indigenous Fisheries Data Collection Framework – The importance of data

- The benefits in collecting data must be made clear. Examples include:
  - A tool for self-managing Sea or River Country
  - As leverage with other stakeholders to gain a return for the community
  - To underpin consultation with management on issues, such as access and allocation
- The benefits to management agencies include:
  - For stock assessments, to set quotas and to inform policy decisions
  - Allow an understanding of the needs of Indigenous communities
  - Allow managers to make informed and culturally appropriate management decisions
- The benefits to researchers include:
  - Improved ecosystem modelling

From Moyle, C., Casement, D., Miller, D., Jones, A., Tonkin, J., Rogers, P., Goldsmith, G., and Knuckey., I 2020 Improved data on Aboriginal and Torres Strait Islander fisheries resource use to inform decision-making, Primary Industries and Regions SA, 72 pp.

Indigenous Fisheries Data Collection Framework – Foundational Steps

1. **Define the purpose**
   - Define the purpose for the engagement and data collection
2. **Capability and capacity assessment**
   - Resource requirements, gaps, roles, skills
   - Goals, objectives and desired benefits
   - Research stakeholder groups
3. **Develop documents**
   - Contracts, roles and responsibilities, contact details, precesses
   - Extension material
4. **Implement strategy**
   - Implement Engagement Capability and Capacity Building Strategys

Indigenous Fisheries Data Collection Framework – Foundational Steps

5. **Make contact**
   - Identify stakeholders and contact the appropriate person(s) with authority
   - Identify existing protocols

6. **Stakeholder meetings**
   - Cultural induction
   - Shared goals, purpose, priorities and desired outcomes
   - Two-way education
   - Identify extension and educational materials

7. **Co-develop documents**
   - Engagement protocols, education and extension materials
   - How will goals, purpose, priorities and outcomes be achieved

8. **Form a partnership**
   - Terms of reference
   - Investigate guides for building relationships and developing partnerships with Indigenous communities

Indigenous Fisheries Data Collection Framework – Develop methods

- Co-develop the following processes and materials
- Clearly define objectives and outcomes
- Data collection method
- Data management and sharing
- Process for data and information use.
- An extension and communication strategy for communicating:
  - Project intent (objectives and outcomes)
  - Data collection, management and sharing
  - Results / use of data
  - Monitoring and evaluation of the data collection process
- A Management and Evaluation Plan for the data collection approach and outcomes.
- A formal Agreement that incorporates all the above steps

Indigenous Fisheries Data Collection Framework – Data required by fisheries managers

- Catch
  - For species with competing pressures
    - Species and number caught
  - For species without competing pressures
    - Species could be grouped (depending for example of SOCI) and number caught
- Effort and participation
  - Hours spent fishing
  - Number of people
  - Gear – what, how many, for how long
- Location
  - Management area or area of water relevant to community
  - Some areas might be culturally sensitive/important and so not recorded

Indigenous Fisheries Data Collection Framework – Data required by fisheries managers

- Date/time
- For cultural events
  - Broad purpose (e.g. ceremony)
  - Number of people fed
- Management information / triggers
  - Access issues
  - Ability to provide for your family and community
  - Ability to provide for your cultural events
  - Are other management issues triggered

Ian Knuckey

ian@fishwell.com.au

www.fishwell.com.au

http://www.youtube.com/user/FishwellConsulting