Participatory fisheries system modeling
Sample process agenda

Guiding principle:
Get participants to share their perspectives, and understand how those perspectives can be linked together to provide a more holistic view of the system

Objectives:
1. Identify the main ecological and socioeconomic factors affecting respective fisheries
2. Encourage participants to express their observations in mechanistic terms
3. Identify most influential ecosystem components
4. Identify where major risks or leverage points in the system lie
5. Identify cross-disciplinary linkages (e.g., between social and biological subsystems)

Roles:
Modeler-facilitator: overall facilitation, focus on getting all people to participate
Process coach: keep group on task, run around providing post-it notes, following agenda and meeting objectives
Recorder: keeps a detailed record of observations and linkages that can be revisited as necessary later in the assessment stage

DO's
Do ask clarifying questions and engage all participants
- Can you explain that in more detail...
- Can you clarify what you mean by...

DONT's
Don't confer personal opinions or ask leading questions
- What do you think about XYZ?
- Don't you think XYZ is important?

Sample Agenda:

9:00 – 9:10   **Registration**

9:10 – 9:20   **Opening remarks**

- Introduce self, role to work across and connect groups of differing expertise
- Why are we here and why now?
- State goals of project – to form conceptual model of system that serves as a reference for scientific analysis.   Used to identify major factors for research, risks for further analysis, integrate assessments with social science better
- Set expectations, this model is not a replacement of an assessment model, long process for converting local knowledge into assessment, not a direct dump of info.
- Expectations of participants - be thoughtful and engaged, hear all your

opinions.
● Expectations of NOAA folks - report back on what is learned and how it was used

9:20 – 9:30   **NMFS introductions**
● Each person states who they are, background, why there are here

9:30 – 9:50   **Stakeholder introductions**
● Each person states who they are, what fisheries they target, gear types?

10:00 – 12:00   **Morning session: identify full suite of system components and linkages**

NOTE - start with 5-10 min of individual brainstorming to ensure participation from all attendees

Goal: Identify physical and biological factors that affect fisheries
Question: What affects your fishing?
   Brainstorming session, folks write on post-it notes
   Facilitator gathers and sticks factors on wall

Goal: Identify linkages between components
Question: How are these components linked?
  Draw arrows between components, with + or – signs
  Time frame of linkages - unresolved - should we suggest one?

Goal: Identify social and economic factors that affect fisheries
Question: What affects your profits? What affects your businesses?
   Brainstorming session, folks write on post-it notes
   Facilitator gathers and sticks factors on wall

12:00 – 1:00   **Lunch**
Take photos of conceptual model at mid-development stage

1:00 – 3:30   **Afternoon session: identify major components, risks, and values**

Goal: Refine conceptual model, identify most influential factors, Identify biggest risks or leverage points in system, Identify values that could help to inform concept of optimum yield

Question: What are the most important components of the ecosystem?
Hone in on major factors and linkages – clean up model, clarifying replicates, removing any potential extraneous factors

Sub-questions:
   - What the things that most influence the species?
   - What are the things that you are most worried about for the future?
   - What are the things that you would like to preserve?
   - What are the things you would want to change?

Take notes and make lists of these factors under each question. Be sure to include both social and ecological.

For these critical factors, ask participants to carry out graphs over time exercise showing expected, hoped, feared behaviors:
- Hand out graphs, starting with first factor (dolphin and wahoo abundance would be easy to start), have participants graph over time: the historical behavior of the factor over time (time period is up to participant), how they expect the factor to act in the future, and what would be the ideal shape of that for the fishery.

Have participants discuss the results, compare and contrast multiple graphs.

Go through additional factors as time allows.

3:30 – 4:00   **Wrap up, closing remarks**

Open up for comments. Was this useful? What did you find most useful? Did you find most useful?