

FISHERIES AND THE ENVIRONMENT – FATE

2015 Request for Proposals

Proposals due 14 October 2014

The Fisheries and the Environment (FATE) Program requests research proposals for funding in FY2015. FATE is a fisheries oceanography research program within NOAA/National Marine Fisheries Service. The FATE Program seeks proposals that analyze the response of living marine resources to environmental variability and change. FATE projects advance the discipline of fisheries oceanography and typically lead to or include development of oceanographic and ecological information useful to ecosystem assessments, status reports, and stock assessments. Background material on the FATE program can be found on the FATE web site:

<http://www.st.nmfs.noaa.gov/fate/>. Of particular interest should be the FATE Science Plan (www.st.nmfs.noaa.gov/fate/Resources/ProgramDocuments/programdocuments).

Proposals must be associated with one of the FATE Research Priorities listed in this announcement. This information must be placed on the FATE Proposal Cover Sheet, should be addressed in the benefits section, and will be used in evaluation of the proposal.

Proposals should include the following sections: *FATE Proposal Cover Sheet, Background, Approach, Benefits, Deliverables, References, Budget, Budget Justification, Statement of Previous FATE Results, and Curricula vitae*. Proposals must be written in 12-point Times New Roman font and all sections must be submitted as a single PDF file. The *Background, Approach, Benefits, and Deliverables* sections combined must not exceed 5 pages. The *FATE Cover Sheet, References, Budget, Budget Justification, Statement of Previous FATE Results, and CV* sections do not count against this limit.

The duration of the proposed research must not exceed two years, must clearly state objectives, and must include statements of work for each year. At least one of the investigators must be a NMFS employee and should be an active member of the research team.

The *FATE Proposal Cover Sheet* must be included with each proposal submission.

The following information must be listed on the cover sheet:

1. Title
2. Principal Investigator
3. Principal Investigator Institution
4. Associated NMFS Fisheries Science Center (*or Centers if PIs from other Centers are collaborating*)
5. Research Priority (#) for this Proposal (*Select a FATE Research Priority listed below*).
6. Project Duration (*1 or 2 years*)
7. Total Funding Request
8. Year 1 Request (*all institutions*)
9. Year 2 Request (*all institutions, if applicable*)
10. Lead NMFS Investigator (*if the Principal Investigator is non-NMFS*)
11. Lead NMFS Investigator organization (*Center/ Division/ Branch*)
12. List all other Co-PIs and Institutions
13. PI email (*the person listed in #2*)
14. PI phone

15. PI address
16. NMFS PI email (*the person listed in #10*)
17. NMFS PI phone
18. NMFS PI address
19. List institutional breakdown of Year 1 budget (institution: funding request for year 1)
20. List institutional breakdown of Year 2 budget (institution: funding request for year 2)

The *Benefits* section should *specifically* describe how the results respond to the FATE research priorities from the associated NMFS Science Center. In addition, this section must include a paragraph that i.) describes how this research relates to ecosystem assessments, ecosystem condition reports, or stock assessments, and ii.) describes how this research links the environment (biological oceanography, physical oceanography, chemical oceanography, climate) to processes important in stock assessment and ecosystem assessments. It should be clear how this research elucidates environmental information and informs assessments.

The *Deliverables* section should identify specific products that will result from the proposed work, for example peer-reviewed publications, indicators to be developed, contributions to specific assessments, and meeting or workshop presentations.

Investigators that have received FATE funding in the past must include a *Statement of Previous FATE Results*, which describes how previously funded FATE projects contributed to FATE goals. This statement can be up to 1 page total (for all PIs) and does not count against the 5 page limit. If the PI's have not received FATE funding in the past, this section can be omitted. FATE does not support the continuation of previous projects; investigators that have received support in the past must submit new projects, which address new goals and objectives.

The *Budget* section should include funding amounts requested for the following categories:

1. Personnel (provide time and cost for each person)
2. Fringe Benefits
3. Travel
4. Equipment (non-expendable property with a unit cost of \$5,000 or more)
5. Supplies
6. Contractual (provide separate itemized budgets for each contract & in the Budget Justification describe products/services to be obtained)
7. Other
8. Total Direct Charges (sum of 1-7)
9. Indirect Charges (provide rate and charges)
10. Totals (sum of 8 and 9)

The budget should include travel funds for an investigator to attend the annual FATE science meeting during the winter of 2016 (and 2017 if a two year proposal). FATE does not have a sufficient budget to support ocean observations nor the budget to support fishery oceanographic process studies. Examples of support for observing systems that would be excluded from FATE are ship charter costs or direct costs associated with the ocean sampling. Analysis of existing data collected from ocean observing systems would not be excluded, if the analyses are designed to improve NMFS's assessments. Examples of process studies that would be excluded from FATE funding include focused field sampling or surveys to monitor fish responses to bio-physical forcing. Proposals that utilize samples collected on existing fishery-dependent or fishery-independent

platforms will be considered, again if the analyses are designed to improve NMFS's assessments. Also as a result of limited budget, FATE cannot support operational updates or long-term, incremental refinement of previously funded proposals.

If the principal investigator(s) or co-investigators are not associated with NOAA, they must include a statement that demonstrates that there is a clearly identified pathway by which funds can be transferred from NOAA to non-NOAA Principal Investigators (e.g., a Cooperative Institute or Joint Institute).

The *Budget Justification* section should provide a narrative to support each budget category and should describe the roles of all PIs listed on the proposal, regardless of whether the PI is receiving salary support or not. If the proposal is selected for funding, funds will be transferred from the FATE program to the NMFS Fisheries Science Center of the lead NMFS PI. If funds are to be transferred outside of NMFS, the budget justification must include a statement that specifically identifies how the funds will be transferred from the NMFS Science Center to the receiving institution.

Each investigator listed on the proposal must include a 2 page *Curriculum vitae* regardless of whether they are receiving salary support. The *CV* of each investigator must include a list of collaborators over the past 48 months.

Proposals where sections have not been completed as described above will be rejected.

Proposals must comply with the NMFS Data and Information Management Policy. The NMFS Data Documentation Directive requires that metadata for all data collected or produced be entered and published in the NMFS Data Catalog and Metadata Repository, InPort (<https://inport.nmfs.noaa.gov/>). Failure to comply with this policy may make the principal investigator ineligible for the next RFP cycle. Contact the NMFS Information Management Coordinator (IMC) and the InPort Librarian in your respective office for details about these requirements. The listing of IMCs can be found at (NOAA Network Login Required): <https://www.st.nmfs.noaa.gov/confluence/display/edm/Information+Management+Coordinators>

Proposal Review

Proposals will be scored according to the following criteria: Scientific and technical merit (0.40); Importance, relevance and applicability to FATE Research Priorities listed in this announcement (0.30); Project costs (0.15); and Project management and qualifications of applicant(s) (0.15).

Discussions with regional FATE Science Steering Committee Members and FATE FTEs prior to proposal submission (listed on www.st.nmfs.noaa.gov/fate/contact-us) are very strongly recommended. Thirty percent of the scoring is based on the proposed project's importance, relevance, and applicability to FATE Research Priorities listed below.

Funding is contingent upon availability of Federal appropriations. It is estimated that \$800,000 will be available for supporting 8 to 12 studies.

Proposals should be e-mailed to the FATE Program (NMFS.FATEproposals@noaa.gov), by 14 October 2014. Funding is dependent on the timing of Federal appropriations.

Research Priorities

1. Studies that develop indices of environmental and oceanographic indicators, test hypotheses, or evaluate analytical tools to investigate **specific mechanisms driving interactions between fisheries and climate and environmental drivers of managed species. Vital rates and parameters of interest include: 1) recruitment, 2) growth, 3) distribution, 4) spatial availability, including changes in observation processes (e.g., survey availability due to SST changes; harvest rate due to distribution or aggregation pattern changes), 5) trophic ecology, 6) maturity 7) natural mortality, 8) health, 9) habitat availability, and 10) larval dispersal.** Such studies should **directly improve stock assessments or protected species management** via explanation and/or prediction of variability in the above population processes. Of particular interest are studies for California Current *Clupeid* and *Sebastes* spp. in the Southwest and for Pacific halibut in Alaska.
2. Develop **spatial and/or temporal models or analyses** that investigate climate and environmental variability on: 1) population distributions, 2) growth, 3) recruitment, 4) maturity, 5) fecundity, 6) migration, 7) distribution, 8) natural mortality, 9) larval dispersal, and 10) predator-prey interactions based on the availability and distribution of forage species, climate and environmental covariates, and fishery interactions. **Evaluate how the impacts of climate and environmental variability can be separated from anthropogenic factors when providing management advice** for fisheries, marine mammal, and protected species management.
3. Develop, improve, or augment indicators that are currently or could be used in **ecosystem-based fisheries management** (e.g. Ecosystem Status Reports to Fishery Management Councils or Integrated Ecosystem Assessments). Such indicators should investigate the impacts of climate and environmental drivers, and their associated uncertainty, on fish and fisheries management. **Management strategy evaluations** that evaluate **alternative harvest control rules** given predicted climate conditions, that investigate potential **climate-change induced shifts in biological reference points**, and that aim to **define how these indicators can inform Council management actions** are particularly encouraged. Investigations of **climate or ecosystem reference points that identify thresholds to trigger management actions** for managed fish stocks are also of interest.
4. Examine the potential **effects of climate variability, climate change, and fishing on managed species, protected resources, and ecosystems.** Proposed research may use historical data and/or forecasting tools to predict future impacts. Of particular interest are studies on the impacts of ENSO (El Nino Southern Oscillation) in the California Current and Alaska on managed species.
5. Evaluate the **feasibility of forecasting oceanographic and climate processes and improving forecast skills** for these processes and their ecosystem impacts over **short (1-10 years) and/or long-term (20-50 years) time periods.** Of particular interest is the application of **IPCC climate scenarios** coupled with management strategy evaluations to

produce long-term impacts of climate change for managed species. Other regional priorities include **forecasting of Pacific salmonid returns** in the Southwest and Northwest, and development of indices or analytical tools to **monitor, assess status, and forecast responses of coral reef species** in the Pacific Islands region, with emphasis on species or complexes in management plans.

6. Explore the **feasibility and evaluate the utility of incorporating climate/environmental/oceanographic indices into stock assessment models** and/or protected species assessments. Identify how environmental indicators can supplement or be considered alongside stock assessment output. The incorporation of environmental and climate **forecasts** into stock assessments is of particular interest.