Vacancy Announcement

Senior Quantitative Vulnerable Species Ecologist for the Inter-American Tropical Tuna Commission (IATTC)

The Inter-American Tropical Tuna Commission (IATTC) invites applications for the position of Senior Quantitative Vulnerable Species Ecologist. This is a fulltime appointment to work at the headquarters of this international organization, which is located in La Jolla, California, U.S.A.

The IATTC is the regional fisheries management organization responsible for the implementation of the 2003 Antigua Convention, the objective of which is to ensure the long-term conservation and sustainable use of the stocks of tunas and tuna-like species and other species of fish taken by vessels fishing in the eastern Pacific Ocean. The IATTC employs a scientific staff that operates under the supervision of the Director of the Commission and of the Coordinator of Scientific Research. The functions of the scientific staff are defined in article XIII of the Convention and include, among others, conducting scientific research, providing information and scientific advice for management, and development and maintenance of data collection programs. The IATTC also serves as the secretariat and research arm of the Agreement for the International Dolphin Conservation Program. More information about the IATTC can be found at www.iattc.org.

The staff's research activities defined under the Strategic Science Plan are divided among four programs: Stock Assessment, Ecosystem and Bycatch, Biology, Data Collection and Database. The selected applicant will work as part of the IATTC Ecosystem and Bycatch Program. Most of the Program's research straddles across three themes: Sustainable Fisheries, Ecological Impacts of Fisheries: Assessment and Mitigation, and Interactions among the Environment, the Ecosystems, and Fisheries.

In this context, the selected applicant's work will mostly focus on assessing and mitigating the ecological impacts of tuna fisheries, as well as on improving the understanding of the interactions among environmental drivers, climate, and fisheries, with a particular focus on vulnerable species (e.g. marine mammals, sea turtles, elasmobranchs, seabirds).

The selected applicant will be expected to work on unique ecological and environmental problems, with special emphasis on the interactions between tuna fisheries, vulnerable bycatch species and the broader ecosystem, relying upon, among others, fishery-dependent observer data, fisheries-independent remote sensing information, as well as oceanographic data sources. Fisheries, and the environment they occur in, are evolving rapidly, and so are the needs, challenges, and methods to monitor, analyze and understand their dynamics and implications on vulnerable species and their habitats. The environment can affect individual or group behavior and distribution of the species, impact fishing strategies, and change the structure of the community and the ecosystem across different spatial and temporal scales. As such, research on dynamic ocean management, climate change impacts and adaptation, environmental dynamics, intra- and inter-community relationships, and data-poor species distribution modeling is becoming increasingly common as tools in fisheries science and management.

Duties of the selected applicant may include, among others:

- Conducting research on the environmental ecology of vulnerable species (e.g. marine mammals, elasmobranchs, turtles and seabirds) to better understand the relationship between environment and species distribution, movement and catch as a means to guide bycatch conservation and management.

- Working with IATTC database managers to create environmental data extractions, post-process data, and conduct statistical analyses.

- Undertaking exploratory and in-depth analyses of various types of data, including, but not limited to, developing tools to explore the implementation of dynamic ocean management for assessing and mitigating risks to vulnerable bycatch species.

- Fitting complex species distribution models to various types of data—often in data-poor settings—through the application or extension of traditional or new innovative methods.

- Analyzing fisheries observer data to understand the role of the species in the community and the ecosystem, and help develop prioritization of conservation actions.

- Conducting research to assess and mitigate the effects of climate change on species, their habitats, and fisheries, with special emphasis on understanding their resilience and co-developing adaptation plans with stakeholders.

- Writing IATTC technical reports and publications for peer-reviewed journals.

- Presenting research results at IATTC meetings and other meetings (including international meetings).

In a highly collaborative, teamwork-oriented working environment, the selected applicant will also be expected to assist IATTC scientific staff members from the Ecosystem and Bycatch and other Programs, as well as to interact with scientists and other relevant personnel or institutions from IATTC Members. Examples include, but are not limited to, supporting IATTC colleagues in the area of quantitative ecological and environmental analyses, assisting with capacity-building activities (e.g. training, workshops) in the region, and other support activities as appropriate and required.

Selection Criteria

A PhD in environmental ecology, fisheries oceanography, mathematics, statistics, or a PhD from a quantitative interdisciplinary graduate program, is preferred, all with both theoretical and applied components. Extensive relevant work experience will be considered for applicants with a master's degree in any of these fields.

Candidates should also possess the following skills:

- Proficiency with managing and analyzing large environmental data sets.
- Proficiency with standard statistical modeling techniques such as generalized linear and additive models, including mixture models (e.g. models for count data with zero-inflation).
- Proficiency with species distribution models. Knowledge of data-poor species distribution models will be considered an asset.
- Familiarity with machine learning methods.
- Familiarity with multi-species and multi-dimensional methods for community structure and ecosystem-based analyses.
- Strong proficiency with the R programming language.
- Familiarity with typical data used in the research of fisheries and vulnerable bycatch species.
- Willingness to work in an office setting, primarily with computer databases, computer programs, and statistical software.
- Willingness to travel both within the US and internationally.

- Strong inter-personal skills and experience working as a part of a team, as well as working independently.
- Willingness to learn new skills and to self-teach new statistical methods.
- Creativity to adapt current methods or develop new methods as required to solve applied problems.
- Excellent communication skills, both oral and written.
- Working knowledge of English or Spanish and at least limited knowledge of the other language. The IATTC is a bilingual organization and written and oral fluency both in English and Spanish will be an asset.

Additionally, possession of the following skills is desirable:

- Experience overseeing or undertaking research, conservation and/or management efforts on protected, listed, or vulnerable species, ideally in a fisheries context.
- Familiarity with animal movement and behavior data.
- Familiarity with conservation and management issues pertaining to the eastern Pacific Ocean tuna fishery, including tuna-dolphin interactions.
- Experience in capacity building and working with stakeholders.
- Knowledge of Shinny app.
- Familiarity with spatial-temporal modelling approaches.
- Experience with purse-seine fisheries, including fisheries data and fishery operations.
- Willingness to occasionally undertake trips at sea on commercial vessels to conduct experiments.
- Familiarity with ACCESS and SQL.
- Publications in peer-reviewed journals.

Salary and Allowances

Commensurate with qualifications, skills, and experience the candidate chosen for the post will be appointed as "Senior Quantitative Vulnerable Species Ecologist". The base salary for an applicant with a PhD will be equivalent to an adjusted US Federal pay grade GS 13:1 ($110,345).

Allowances include annual leave with pay, sick leave with pay, medical, dental and life insurance and a defined contribution pension plan.

The costs of relocation in San Diego, California, including travel and shipping of household/personal effects, will be covered by the Commission, in accordance with its rules and as coordinated with the selected applicant.

Availability

The candidate chosen for the post should be available to report at IATTC headquarters on October 1, 2022, or as soon as possible thereafter, in coordination with his/her supervisor and the Coordinator of Scientific Research. in this respect, arrangements will be made as needed, in response to the situation created by the COVID 19 pandemic.

Applications

Applications may be submitted in either English or Spanish and should be sent no later than July 31, 2022 in electronic format to tmusano@iattc.org, or to the following address:

Teresa Musano
Inter-American Tropical Tuna Commission
8901 La Jolla Shores Drive,
La Jolla CA 92037-1509
USA

Applications should include the following:

- A cover letter containing a statement of purpose of the application and succinct descriptions of the applicant's experiences and abilities.

- Curriculum Vitae – preferably the applicant should fill, electronically or in hardcopy, the IATTC personal history form that can be accessed at
  https://www.iattc.org/StaffVacancies/IATTCPersonalHistoryForm.pdf

- Official copy of transcripts and college degree.

- List of training courses, special skills, certificates and licenses, honors, or awards that relate to the specific description of this announcement. Please do not include copies of certificates.

- List of publications

- Letters of reference from persons with a recent knowledge of the applicant's character, qualifications and experience.

- A health certificate or statement issued by a competent medical doctor indicating that the candidate is physically able to perform the functions of the position as described in this announcement, or is otherwise in good health.

- A statement as to whether or not the applicant's current supervisor may be contacted.

Additional Information

Please consult the IATTC website at www.iattc.org for complete information on IATTC duties and the application process.