

Postdoctoral positions in Iceland

Three three-year post-doctoral positions are available in Iceland on ecosystem-based fisheries management, with topics focusing on

- 1) fleet dynamics and fisheries economics,
- 2) stock assessment, and
- 3) ecosystem modeling using Atlantis,

with an application of **due date of 4. June 2020**. Please distribute widely!

Best wishes,

Pamela Woods

(and project partners Erla Sturludóttir, Bjarki Elvarsson, Gunnar Stefánsson, Daði Már Kristófersson, Sveinn Agnarsson, Freydís Vigfúsdóttir, Martin Smith)

Two of the three post-doctoral positions available at the Marine and Freshwater Research Institute, Hafnarfjörður, Iceland.

1. Post-doctoral researcher in fleet dynamics and fisheries economics

A position is advertised at Marine and Freshwater Research Institute (MFRI) in Hafnarfjörður, Iceland, for a post-doctoral researcher to work on fleet dynamics and fisheries economics of the Icelandic cod stock (*Gadus morhua*). This is a three-year position funded by a grant received from the Icelandic Research Fund (“United under one cod: complexities of cod fishing and their utility”), in which the post-doctoral researcher will be expected to fit a spatial choice model by linking spatial information in cod fishing opportunities and attributes of fishing activity (catch amount, bycatch amount, effort, location and timing of catch, expected size composition, expected cod density, gear, location and timing of capture) with attribute-specific prices, especially related to size and predicted from a hedonic price model, and other factors that control profitability, to better understand how market factors can influence stock dynamics and fisheries management.

This project will use biological samples from MFRI survey and catch data, fisheries logbook data, and fish market data, so candidates with both a strong background in data analysis and fisheries economics modeling are ideal. The researcher will be located at the MFRI (working alongside Drs. Pamela J. Woods and Bjarki P. Elvarsson), which is a leading research institute in northern marine ecosystem science and houses a diverse and lively team of researchers in a friendly work environment. Work will also be in close collaboration with economists at the University of Iceland, Faculty of Economics, School of Social Sciences (Drs. Daði Már Kristófersson, Sveinn Agnarsson, and Freydís Vigfúsdóttir), and Duke University Nicholas School of the Environment (Dr. Martin Smith).

2. *Post-doctoral researcher in stock assessment and ecosystem dynamics*

A position is advertised at Marine and Freshwater Research Institute (MFRI) in Hafnarfjörður, Iceland, for a post-doctoral researcher to work on stock assessment and ecosystem modeling of the Icelandic marine ecosystem. This is a three-year position funded by a grant received from the Icelandic Research Fund, in which the post-doctoral researcher will be expected to 1) develop components of the Gadget length- and age-based modeling framework and R package user interfaces to aid in its online accessibility, 2) simulation-test Gadget's performance under various conditions, and 3) work with ecosystem modelers to link Gadget to as an operating assessment model in ecosystem simulations using Atlantis.

This project will use MFRI survey and catch data, fisheries logbook data, and fish market data, so candidates with both a strong background in statistics and stock assessment modeling are ideal. The researcher will be located at the MFRI (working alongside Drs. Pamela J. Woods and Bjarki Þ. Elvarsson), which is a leading research institute in northern marine ecosystem science and houses a diverse and lively team of researchers in a friendly work environment., Work will also be in close collaboration with statisticians at the University of Iceland (Dr. Gunnar Stefánsson, Mathematics Department, School of Engineering and Natural Sciences) and the Agricultural University of Iceland (Dr. Erla Sturludóttir, Department of Agricultural Science).

For both positions at MFRI:

Required Qualifications:

PhD. In biology, ecology, natural resource science or management, economics, engineering, statistics, or applied mathematics

Desired Qualifications:

- Demonstrated capabilities in statistics and analysis of large data sets
- Modeling skills:
 - Post-doc1: Demonstrated capabilities in economic, ecological, or biological modeling
 - Post-doc 2: Demonstrated capabilities in stock assessment or related statistical modeling
- Fluency in R statistical programming and other programming skills
- Peer-reviewed publication history
- Interdisciplinary experience
- Works well in a team and independently

Salary payments are in accordance with labor union contracts negotiated between the Ministry of Finance and the Economy and the Félag íslenskra náttúrufræðinga (Association of Icelandic Naturalists). To apply, please send an application consisting of a letter of interest, a C.V., and two references with contact information **no later than June 4, 2020 to pamela.woods@hafogvatn.is**. Upon hiring a certificate of completion of doctoral studies will be required.

For more information contact Pamela J. Woods pamela.woods@hafogvatn.is or Bjarki Þ. Elvarsson bjarki.elvarsson@hafogvatn.is.

<https://www.hafogvatn.is/is/midlun/frettir-og-tilkynningar/lausar-eru-til-umsoknar-tvaer-stodur-nydoktora-vid-hafrannsoknastofnun-med-starfsstod-i-hafnarfirdi>

The third post-doctoral position is available at the Agricultural University of Iceland in Hvanneyri, Iceland

3. *Ecosystem modeling using Atlantis*

The Agricultural University of Iceland received a grant of excellence from the Icelandic Research Fund for the project “Fishing into the Future” in co-operation with the Marine and Freshwater Research Institute and the University of Iceland. The project focuses on the development of ecosystem models for the ocean, but ecosystem models can be useful in fisheries management and to answer questions related to the ecosystem. They have also been used to investigate the social and economic effects of alternative management strategies.

The post-doctoral researcher will be expected to build a whole-of-ecosystem model (Atlantis) for the ocean around Iceland. The position is for three years and is funded by a grant received from the Icelandic Research Fund, in which the post-doctoral research is expected to build a fisheries and economic model for an already existing Atlantis model of Icelandic waters. The project also involves connecting Atlantis to stock assessment models. The researcher would also be responsible for management strategy evaluations and of using Atlantis as an operation model to test the performance of other simpler models. This project will use survey and catch data, fisheries logbook data, and fish market data, so candidates with both a strong background in data analysis and modeling are ideal.

The post-doctoral researchers will work with a team of ecological modelers, statisticians, economists and fisheries scientists from the Agricultural University of Iceland (Dr. Erla Sturludóttir), the Marine and Freshwater Research Institute (Dr. Pamela J. Woods og Dr. Bjarki Þór Elvarsson) and the University of Iceland (Dr. Gunnar Stefánsson og Dr. Sveinn Agnarsson). The researcher will also work with other post-docs and PhD students involved in the project.

The candidate must have a PhD in statistics, applied mathematics, economics, ecological modeling, ecology, biology or another relevant area.

Desired Qualifications:

- Demonstrated capabilities in statistics and analysis of large data sets
- Demonstrated capabilities in economic, ecological, or biological modeling
- Fluency in R statistical programming and other programming skills
- Peer-reviewed publication history
- Interdisciplinary experience
- Works well in a team and independently

Salary payments are in accordance with labor union contracts negotiated between the Ministry of Finance and the Economy and the Félag íslenskra náttúrufræðinga (Association of Icelandic Naturalists).

To apply, please send an application consisting of a letter of interest, a C.V., and two references with contact information **no later than June 4, 2020**. Upon hiring a certificate of completion of doctoral studies will be required. Applications should be submitted to Guðmunda Smáradóttir Human Resources and Quality Manager: gudmunda@lbhi.is tel. +354 433 5000.

For more information contact Erla Sturludóttir (erla@lbhi.is).

http://www.lbhi.is/post_doctoral_position_ecosystem_modeling