



Food and Agriculture  
Organization of the  
United Nations



General Fisheries Commission  
for the Mediterranean  
Commission générale des pêches  
pour la Méditerranée

# GitHub and its potential use at GFCM

**Arni Magnusson, Senior biostatistician**

General Fisheries Commission for the Mediterranean (GFCM)  
Food and Agriculture Organization of the UN (FAO)

GFCM Seminar  
6 November 2020

# Overview



What is **GitHub**

How is GitHub currently used in [marine science](#)

Discussion about how **GFCM** could use GitHub

# What is GitHub

Free website where people can make things **available for download**:

Software    *stock assessment models, R packages*

Analyses    *R scripts, aggregated data tables*

Also a **collaborative work** environment:

Software development    *produce software, distribute*

Expert groups            *do science, share tools*

Example    <https://github.com/arni-magnusson>



**Arni Magnusson**  
arni-magnusson

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39 followers · 4 following · 23

- FAO
- Rome
- <https://arni-magnusson.github.io>

**Organizations**



Overview Repositories 21 Projects Packages

**Pinned**

[kaskr/adcomp](#)

AD computation with Template Model Builder (TMB)

C++ 121 62

[gimmTMB/gimmTMB](#)

gimmTMB

HTML 104 26

[admb-project/admb](#)

AD Model Builder

C++ 49 16

[admb-project/adstudio](#)

Statistical modelling in ADMB and TMB

Emacs Lisp 5

[ices-tools-prod/icesTAF](#)

Functions to support the ICES Transparent Assessment Framework

R 2 3

[ices-eg/wg\\_MGWG](#)

ICES Methods Working Group

ToX 7 9

**482 contributions in the last year**



**Contribution activity**

2020

**November 2020**

arni-magnusson has no activity yet for this period.

**October 2020**

- Created 2 commits in 2 repositories
- [arni-magnusson/arni-magnusson.github.io](#) 1 commit
- [DTUAqua/spicet](#) 1 commit

2019  
2018  
2017  
2016  
2015  
2014

# What is GitHub

## Version control

- Backup of previous editions
- Can always go back in history
- See who changed what, when, and why

## Access control

- Public/private projects
- Read/write access for each user

## Social network

- Follow projects and colleagues
- Send comments and suggestions
- Makes work cool and fun

## Browse and download files

Easy

## Upload and edit files

Quite technical



**Jim Ianelli**

jimianelli

Follow

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48 followers · 98 following · 28 stars

Sign in to view email

### Highlights

Arctic Code Vault Contributor

PRO

### Organizations

1 member

Overview Repositories 23 Projects Packages

### Popular repositories

**TunaSim**

Shell 2

**tpl2dox**

Forked from johnsbert/tpl2dox

Scripts to generate Doxygen pages from ADMI tpl files

CSS

**ADMB\_XML**

Forked from johnsbert/ADMB\_XML

xml interface for I/O of ADMB types

**styles**

Forked from citation-style-language/styles

Official repository for Citation Style Language (CSL) citation styles.

Ruby

**Tagmod**

Smarty

**MAS**

Forked from msupernaw/MAS\_old

C++

### 160 contributions in the last year



### Contribution activity

2020

November 2020

Jim Ianelli has no activity yet for this period.

2019

2018

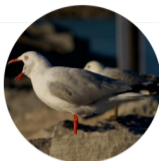
October 2020

2017

2016

Created 27 commits in 2 repositories

afsc-assessments/flattfish 26 commits



**Nicholas Clark**  
nicholasjclark

Lecturer at University of Queensland (Australia). Interested in statistics and machine-learning, primarily with applications in community ecology

Follow

...

17 followers · 48 following · 20

Brisbane, Queensland, Australia

Sign in to view email

http://nicholasjclark.weebly.com/

@nj\_clark

#### Highlights

\* Arctic Code Vault Contributor

Overview **Repositories** 18 Projects Packages

Find a repository...

Type: All

Language: All

### spatialepi\_website

GitHub repository for our research group's website

HTML Updated 8 days ago

### CV

Nicholas J Clark curriculum vitae

R Updated 8 days ago

### Mediterranean-Fishes-MRF

R code to reproduce analyses in "Rapid winter warming could disrupt coastal marine fish community structure" (Clark et al, Nature Climate Change, 2020)

multivariate machine-learning ecology-modelling network-analysis markov-random-field rstata

R GNU General Public License v2.0 Updated on Jul 15

### BBS.occurrences

Effects of landcover on avian community ecology

R Other Updated on Jul 14

### MRFcov

Markov random fields with covariates

network-analysis graphical-models networks markov-random-field conditional-random-fields r-package

R ☆ 15 📄 2 Updated on Jul 14

### website

Forked from esa-qerc/website

Hugo source code for the QERC website

HTML 📄 8 Updated on Oct 4, 2019



## Shira Salingré

shirasal

MSC student in Ecology at [@belmaker-lab](#) (Tel Aviv University). My research examines the changes in fish co-occurrence networks in the Mediterranean sea

Follow



0 followers · 2 following · 25

[@belmaker-lab](#)  
Tel Aviv University  
[@shira\\_salin](#)

### Highlights

Arctic Code Vault Contributor

PRO

Overview **Repositories** 12 **Projects** **Packages**

### Pinned

[fish\\_social\\_network](#)

Studying community networks of fish in the Mediterranean sea

HTML

[medata](#)

A compilation of Mediterranean sea fish census surveys

HTML

### 645 contributions in the last year



### Contribution activity

2020

November 2020

shirasal has no activity yet for this period.

2019

2018

October 2020

Created 72 commits in 3 repositories

[shirasal/fish\\_social\\_network](#) 69 commits

[belmaker-lab/uvc-data-sheets](#) 2 commits

[shirasal/medata](#) 1 commit

Show more activity

Seeing something unexpected? Take a look at the [GitHub profile guide](#).







FLR

<http://flr-project.org> [flr@flr-project.org](mailto:flr@flr-project.org)

Repositories 34 Packages People 3 Projects

Find a repository...

Type: All

Language: All

**ss3om**

Tools to load SS3 outputs and generate grids of model runs for OM conditioning

Scheme 1 5 2 0 Updated 2 days ago

**FLBEIA**

Bio-Economic Impact Assessment of Management strategies using FLR

R 8 6 20 2 Updated 3 days ago

**flr.github.io**

FLR pages

TeX 0 0 2 1 Updated 4 days ago

**FLa4a**

The repository for the JRC Initiative on stock assessment

R 7 10 27 1 Updated 4 days ago

**FLCore**

Core package of FLR, fisheries modelling in R

r fr fisheries-modelling

R 15 10 20 0 Updated 10 days ago

**FLBEIAshiny**

A shiny app to interface with FLBEIA

CSS 1 1 0 0 Updated 11 days ago

## Top languages

R C++ C Scheme TeX

## People

3 &gt;





## ICES Expert Groups

Workspaces for ICES expert groups to archive code and case-specific methods

📍 Copenhagen, Denmark <http://www.ices.dk/community/groups...> [github@ices.dk](mailto:github@ices.dk)

📁 **Repositories** 53 📦 Packages 👤 People 212 👥 Teams 54 📁 Projects

### Pinned repositories

📁 **doc**

Introduction to GitHub

🔍 Find a repository...

Type: All ▾

Language: All ▾

### wk\_WKSEALS-2020

ICES & NAMMCO Joint Workshop on Seal Modelling

🌐 R 🍴 0 🌟 0 🕒 0 📄 0 Updated 2 days ago



### wg\_WGBYC

Working Group on Bycatch of Protected Species

🍴 0 🌟 0 🕒 0 📄 0 Updated 5 days ago



### WK\_RDBES

🌐 R 🍴 5 🌟 3 🕒 25 📄 0 Updated 11 days ago



### wg\_WGS2D

Working Group on Seasonal-to-Decadal Prediction of Marine Ecosystems

🌐 R 🍴 1 🌟 3 🕒 0 📄 0 Updated 12 days ago



### Top languages

🌐 R 🟠 HTML 🟢 C# 🔵 TypeScript  
 🟢 TeX

### People

212 >





ICCAT

[Repositories](#) 2 [Packages](#) [People](#) [Projects](#)

Type: All

Language: All

### abft-mse

MSE for Atlantic bluefin

HTML 3 4 3 0 Updated 17 days ago

### software

ICCAT Stock Assessment Software Catalogue.

Fortran 1 2 0 0 Updated on Apr 4, 2019

#### Top languages

Fortran HTML

#### People

This organization has no public members. You must be a member to see who's a part of this organization.



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CCSBT

CCSBT

Canberra, Australia <http://www.ccsbt.org>[Repositories](#) 1 [Packages](#) [People](#) [Projects](#)

Type: All

Language: All

**sbtr**

CCSBT R package.

R 0 0 0 Updated 9 days ago

Top languages

R

People

This organization has no public members.  
You must be a member to see who's a part  
of this organization.



## Pacific Community (SPC)

Pacific Community (SPC) Official GitHub Organization

 📍 New Caledonia <http://www.spc.int/> [✉ hostmaster@spc.int](mailto:hostmaster@spc.int)


 📁 **Repositories** 36  Packages  People 5  Projects

Type: All ▾






Language: All ▾

**ofp-sam-flr4mfcl**





RAMFCL built with FLR classes

 R  1  3  0  1 Updated 10 hours ago


## Top languages

 R  Python  HTML  JavaScript  
 TypeScript
**ofp-sam-vast-utils**

Utility functions for applying VAST to analysis of WCPFC tuna fisheries data.

 R  GPL-3.0  0  0  0 Updated 5 days ago


## People

5 &gt;

**ofp-sam-amped**

Collection of Shiny applications for exploring harvest control rules.

 HTML  GPL-3.0  0  1  0 Updated 6 days ago
**pdh-docs**

Technical documentation for the Pacific Data Hub

 0  0  0 Updated 6 days ago
**ckanext-spc-pdh**

CKAN repo for the Pacific Data Hub, an open data portal for datasets from the Pacific.

 Python  AGPL-3.0  1  0  0 Updated 7 days ago
**statastdmx**

Forked from roly97/statastdmx

Stata module for connecting to PDH.STAT

 Stata  2  0  0 Updated 7 days ago




nafc-assess

[Repositories](#) 2 [Packages](#) [People](#) [Projects](#)

Find a repository...

Type: All

Language: All

## NAFOdown

An R Markdown Template for Producing NAFO Scientific Council Documents

R 1 0 0 0 Updated on Jul 15

## rosettafish

Forked from pbs-assess/rosettafish

An R package for translating fish- and fisheries-related terms

R 12 0 0 0 Updated on Sep 16, 2019

### Top languages

R

### People

This organization has no public members.  
You must be a member to see who's a part of this organization.



IOTC WPM

<http://iotcwpm.github.com>
[iotcwpm@iotc.org](mailto:iotcwpm@iotc.org)
[Repositories](#) 9
 [Packages](#)
[People](#) 2
 [Projects](#)

## Pinned repositories

 **SKJ**

Management strategy evaluation for the Indian Ocean skipjack tuna fishery

● C++ ☆ 2 👤 1

Type: All ▾

Language: All ▾

**ALB**
 Work on Management Strategy Evaluation for Indian Ocean Tuna Commission  
 albacore stock

● HTML 👤 0 ☆ 0 🕒 0 🔧 0 Updated on Apr 9
**SWO**

MSE for Indian Ocean sworfish

● Scheme 👤 1 ☆ 0 🕒 0 🔧 0 Updated on Oct 14, 2019
**SKJ**

Management strategy evaluation for the Indian Ocean skipjack tuna fishery

● C++ 👤 1 ☆ 2 🕒 0 🔧 0 Updated on Oct 11, 2017
**R**

Repository of R packages from iotcwpm

● Makefile 👤 0 ☆ 0 🕒 0 🔧 0 Updated on Dec 13, 2016
**mpd02**

## Top languages

● R ● CSS ● TeX ● Makefile  
● HTML

## People

2 &gt;





# United Nations on GitHub

- ▶ UN Development Programme
- ▶ UN High Commissioner for Refugees
- ▶ UN Children's Fund (UNICEF)
- ▶ IOTC
- ▶ FAOSTAT
- ▶ UN Sustainable Development Goals





## FAOSTAT

FAOSTAT provides time-series and cross sectional data relating to food and agriculture for some 200 countries.

Rome, Italy <http://fao.org/faostat>

Repositories 52 Packages People 3 Projects

Find a repository...

Type: All

Language: All

## faostat

JavaScript 1 1 0 0 Updated on May 14, 2019

## faostat-ui

FAOSTAT user interface.

JavaScript GPL-2.0 3 6 33 0 Updated on Dec 22, 2016

## faostat-ui-report-table

FAOSTAT Report table component

JavaScript GPL-2.0 0 0 0 0 Updated on Dec 12, 2016

## faostat-api

FAOSTAT public API.

Java GPL-2.0 1 5 5 0 Updated on Dec 12, 2016

## faostat-ui-download-selector

FAOSTAT Download selector box, supporting multiple tabs and a search bar, populated through DB procedures.

CSS GPL-2.0 0 0 1 0 Updated on Dec 8, 2016

## faostat-ui-menu

## Top languages

JavaScript CSS Java HTML

## People

3 &gt;





Open SDG

[Repositories](#) 11
 [Packages](#)
[People](#)
[Projects](#) 2

Type: All ▾

Language: All ▾

### open-sdg-site-starter

A starting point for the site repository of an Open SDG platform implementation.

Python
MIT
36
3
4
1
 Updated 16 hours ago


#### Top languages

Python
Shell
JavaScript
  
Ruby
HTML

### open-sdg

A platform for collecting and disseminating data for the Sustainable Development Goal global indicators.

JavaScript
MIT
28
21
67 (2 issues need help)
12
 Updated 4 days ago


#### People

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### jekyll-open-sdg-plugins

Jekyll plugins for use with the Open SDG platform

Ruby
MIT
2
1
0
0
 Updated 5 days ago


### sdg-build

Python package to convert SDG-related data and metadata between formats

Python
MIT
9
2
17
2
 Updated 5 days ago


### sdg-translations

Translations of language for use with the Sustainable Development Goals.

Python
MIT
28
3
18
4
 Updated 12 days ago


# GitHub in marine science

Scientists *students, faculty, researchers*

Groups *ICES EGs, benchmark reviews, MSEs*

Projects *FLR, r4ss, ramlegacy*

Institutes *DTUAqua (spict), Hafro (gadget)*

United Nations *FAOSTAT, UN SDG*

RFMOs *IOTC, ICES, ICCAT, SPC, CCSBT, NAFO,  
IATTC, SPRFMO, CCAMLR, etc.*

- ▶ Invite and facilitate collaboration
- ▶ Disseminate software and aggregated data
- ▶ Network, professional image
- ▶ Facilitate uptake of information

# GFCM

General Fisheries Commission for the Mediterranean - FAO

📍 Rome, Italy [🔗 http://www.fao.org/gfcm](http://www.fao.org/gfcm)

**Repositories**

 Packages

 People

 Projects



## GFCM

General Fisheries Commission for the Mediterranean - FAO

Rome, Italy <http://www.fao.org/gfcm>



**Repositories**



Packages



People



Projects



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## GFCM

General Fisheries Commission for the Mediterranean - FAO

Rome, Italy <http://www.fao.org/gfcm>

[Repositories](#) [Packages](#) [People](#) [Projects](#)

- ▶ **Software** that is generally useful for anyone [MSSQL – an R package](#)
- ▶ **Software** that is useful for GFCM data scientists and/or the Secretariat
- ▶ **Datasets** that are public (CSV format)
- ▶ **Analyses** that are public (R scripts, e.g. from published reports/papers, MSEs, etc.)

*Anything GFCM wants to showcase, or facilitate collaboration*



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