

# pyOpenSci: Open and reproducible research, powered by Python

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## What is pyOpenSci?

pyOpenSci (short for Python Open Science) is building a diverse community that supports well documented, open source Python software to enable open reproducible science. With our recently awarded support from the Alfred P. Sloan Foundation, the pyOpenSci community will develop best practice guidelines and standards for scientific Python software. These guidelines and standards will be reinforced through a community-led peer review process and training. Packages that complete the peer review process become a part of the pyOpenSci ecosystem, where maintenance can be shared to ensure longevity and stability in code.

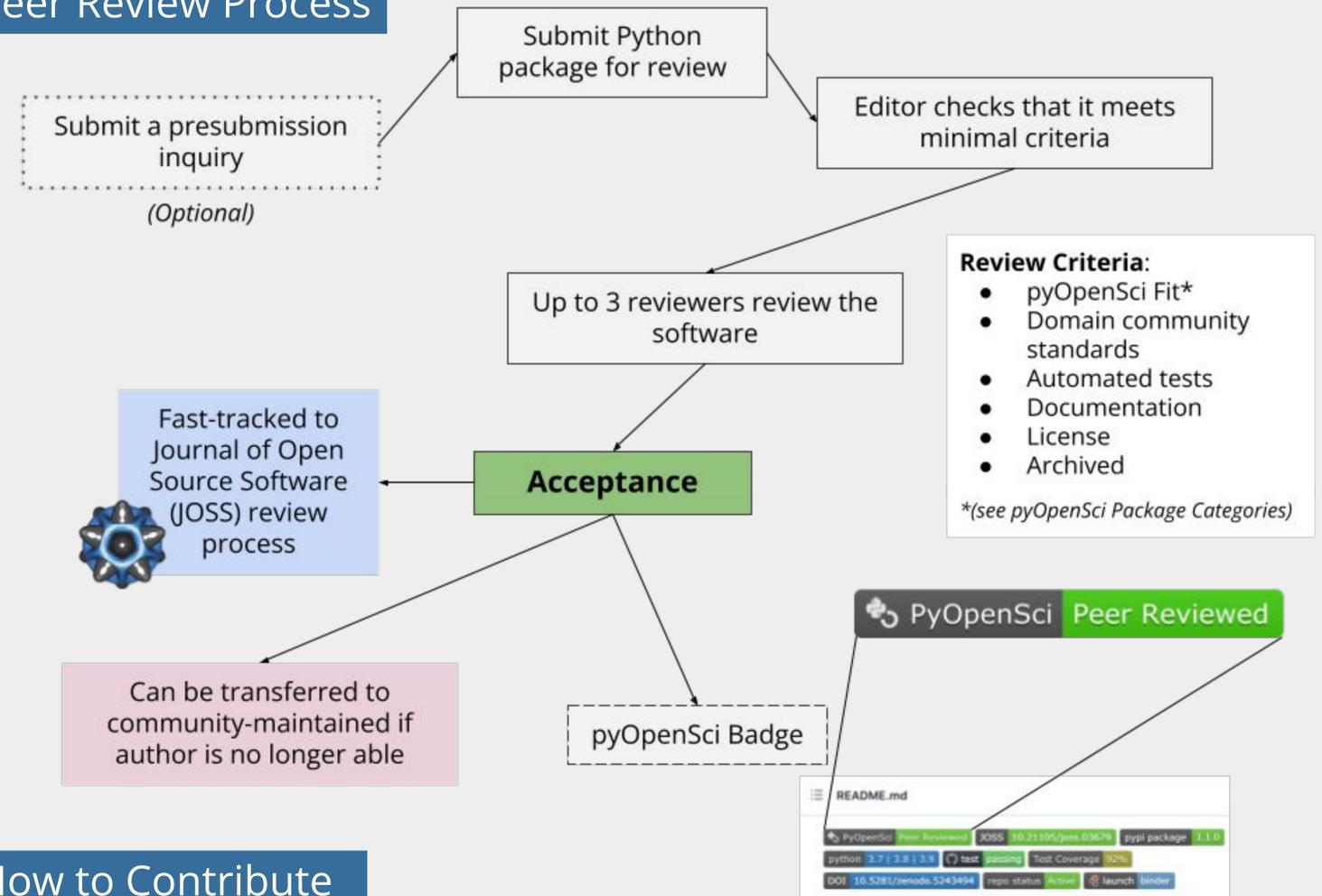
pyOpenSci is built on top of the successful model of rOpenSci, founded in 2011, which has fostered the development of several useful biodiversity informatics R packages.



## pyOpenSci Package Categories

- **Data retrieval:** Packages for accessing and downloading data from online sources. Includes wrappers for accessing APIs.
- **Data extraction:** Packages that aid in retrieving data from unstructured sources such as text, images and PDFs.
- **Data munging:** Tools for processing data from scientific data formats.
- **Data deposition:** Tools for depositing data in scientific research repositories.
- **Reproducibility:** Tools to scientists ensure that their research is reproducible. E.g. version control, automated testing, or citation tools.
- **Geospatial:** Packages focused on the retrieval, manipulation, and analysis of spatial data.
- **Education:** Packages to aid with instruction.
- **Data visualization:** Packages for visualizing and analyzing data.

## Peer Review Process



## How to Contribute

- **Submit a package to pyOpenSci.** We are looking for Python packages that support scientific Python community. Read more about our review process and scope.
- **Volunteer to be a reviewer for pyOpenSci.** We are looking for people who can help review software packages as they are submitted.
- **Contribute to the pyOpenSci Developer Guide.** The pyOpenSci Developer Guide recommends best practices for developing a pyOpenSci package. Best practices are always changing, so contributions are welcome.
- **Help with technical infrastructure.** pyOpenSci has a few pieces of technical infrastructure which need maintenance and development.
- **Spread the word!** pyOpenSci is a community-driven project. Tell your friends, recommend that a colleague submit a package, mention us at conferences, spread the word!
- **Join a community meeting.** We will be launching monthly virtual meetings in Spring 2022. Follow pyOpenSci on Twitter for updates on specific details.