

## 「Progress in Earth and Planetary Science」と地球惑星科学の発展

## "Progress in Earth and Planetary Science" and the development of Earth and Planetary Science

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2014年4月より、参加50学会と協力し、完全OA電子ジャーナルをSpringer社よりProgress in Earth and Planetary Science (PEPS)を順調に出版しています。レビュー論文の掲載率は30%と高くなっており、当初の目標20%を達成しています。また、質の高い論文が多いこともあり、高いアクセス数（15万件）を誇っており、世界への情報発信は強化されています。2014年4月から1年間に出版された論文を基に計算した暫定IFは、雑誌で2.9、本まで含めると3.3で、この分野の引用には時間が多少かかることを考慮すると、この数字はより上昇すると推定され、地球惑星科学において世界と競争できる位置にいます。今後データ出版も含めて、新しい情報発信にトライしていこうと思います。JpGUのジャーナルの目的は、JpGU参加学会と協力して、出版を介して世界の地球惑星科学の発展に寄与することです。

キーワード：「Progress in Earth and Planetary Science」、地球惑星科学、出版

Keywords: Progress in Earth and Planetary Science, Earth Planetary Science, Publication

## オープンアクセス、オープンサイエンスの最近の状況と政策

## Recent States in Open Access and Open Science and Policy Developments

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Author introduces recent states of policy developments regarding Open Access and Open Science, with a brief history of scholarly publishing and communication for these decades that have been improved with incremental and disruptive ways with ICT technology .

Open Science, its definition is still not fixed, is a kind of movement to change the legacy framework of ST and Innovation, containing Science 2.0, Open Innovation, and Open Data, initiated by Open Access movement for journal article in a sense. By exploiting the potential of Open Science, the framework of science would be changed drastically, although it needs time to be settled.

キーワード：オープンアクセス、オープンサイエンス、政策、学術情報流通

Keywords: Open Access, Open Science, Policy, Scholarly Communication

Ecological Research誌におけるData paper の取り組み: 生態学におけるオープンデータへの道  
Experiences of Data papers in Ecological Research: A pathway to the open data in ecology

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*Ecological Research* has been published by the Ecological Society of Japan since 1986. It publishes original research papers, reviews, technical reports, and notes and comments covering all aspects of ecology and ecological sciences. The editorial board consists of sixty-eight editors including a chief editor and ten associate editors who are responsible for controlling editorial procedures within their each professional field. The new category "Ecological Research Data Papers" was launched in 2011 to facilitate activities for opening the data that has usually been stored and been uneasy to be accessed publicly.

Data whose meta information is described in the Data Paper is archived as "Ecological Research Data Archives", which is located in the part of JaLTER database. JaLTER (Japan Long-Term Ecological Research network) was established in 2006 to provide scientific knowledge, which contributes to conservation, advancement and sustainability of environment, ecosystem services, productivity and biodiversity for a society by conducting long-term and interdisciplinary research in ecological science including human dimensions. JaLTER has nation wide network, which consists of 56 field sites including forests, lake and marine observatories, and agricultural experimental sites. Own database, JaLTER DB is managed and operated in the Center for Global Environmental Research in National Institute for Environmental Studies. We use the Metacat system as a database server application which handles EML (Ecological Metadata Language) for data organization and searching processes.

Since the establishment of JaLTER, the Committee for Large and Long-term Ecological Research of the Ecological Society of Japan has worked with JaLTER to encourage ecological scientists to make networks for field observations and monitoring. At the same time, in order to build up the framework for data opening by ecological scientists not only for the research communities, but also for the public and governments, the committee and JaLTER have worked cooperatively to establish the publishing procedure of Data Papers. The reason of this cooperation has been due to mutual benefits: Ecological Society can facilitate to open ecological data previously stored individually and/or institutionally through the data base facility of JaLTER, and JaLTER can yield high quality data through the authorization by editorial board of the Ecological Research.

12 data papers have been published in Ecological Research, and several manuscripts are currently under review. Those included datasets related to forest ecosystems and ones related to lake ecosystems, and agricultural ecosystems. Those were made by field oriented monitoring, and one consists of remote sensing data. Review process of data paper is performed mainly to evaluate the quality (accuracy and usefulness) of metadata and the organization of datasets.

A current subject for us is to keep the consistency of review standard and criteria of acceptance. To overcome of this issue, we are encouraging potential contributors of data papers, because review quality can not keep better without writing experiences of data papers. Moreover, datasets as products of data papers have to be utilized by scientists and recognized their usefulness not only by ecologists. We still need to make more actions to let the researchers recognize the importance of data opening. We believe that data papers can generate an incentive for data owners to act as data suppliers for ecological community and public.

Ecological Research: <http://www.springer.com/life+sciences/ecology/journal/11284>  
Ecological Research Data Archives:  
[http://db.cger.nies.go.jp/JaLTER/ER\\_DataPapers/archives/2014/ERDP-2014-01/metadata](http://db.cger.nies.go.jp/JaLTER/ER_DataPapers/archives/2014/ERDP-2014-01/metadata)  
JaLTER: [http://www.jalter.org/index.php?ml\\_lang=en](http://www.jalter.org/index.php?ml_lang=en)

キーワード：データペーパー、オープンデータ、日本生態学会  
Keywords: Data paper, Open data, Ecological Society of Japan

Science and Technology of Advanced Materials誌を例とするオープンアクセスジャーナルの安定化の条件 学術誌創刊350年の歴史に寄せて

Conditions to stabilize open access journal publishing with a case study of Science and Technology of Advanced Materials - A moment in the 350-year history of journal publishing

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オープンアクセスという新たな論文配信を転機として、日本政府は日本発学術誌の国際発信力強化を支援し、同時に日本発論文のオープンアクセス化を後押ししている。学協会、図書館、大学・研究機関は、この政府方針を受けて何らかのオープンアクセス化に取り組み、何らかの方法でその成果を示す期待の中に置かれている。本講演では、投稿者負担金（APC）を含めオープンアクセスジャーナルの今後の課題や可能性を視野に、物質・材料研究機構（NIMS）が支援する材料科学分野でのゴールドオープンアクセスジャーナル『Science and Technology of Advanced Materials (STAM)』誌を例に、購読誌として7年、OA誌として8年の歩みに学ぶ安定的運営と発展するための出版条件を考察する。

（参考文献：[https://www.jstage.jst.go.jp/article/johokanri/58/5/58\\_372/\\_pdf](https://www.jstage.jst.go.jp/article/johokanri/58/5/58_372/_pdf)）

キーワード：オープンサイエンス政策、オープンアクセスジャーナル、投稿者負担金、持続的ジャーナル出版  
Keywords: Open science policy, Open access journals, APC (article processing charges), sustainable journal publishing

「Earth, Planets and Space」のオープンアクセス出版  
"Earth, Planets and Space": Open Access Publication

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欧文学術誌Earth, Planets and Space (EPS 誌) は地球電磁気・地球惑星圏学会, 日本地震学会, 日本火山学会, 日本測地学会, 日本惑星科学会の5 学会によって共同出版されている地球惑星科学分野のジャーナルである。EPS 誌はJournal of Geomagnetism and Geoelectricity およびJournal of Physics of the Earth の2 誌の後継誌として1998 年に創刊された。EPS 誌は平成25-29年度の研究成果公開促進費「国際情報発信力強化」のサポートのもと、2014 年1 月から完全なオープンアクセス化に移行した。オープンアクセスによるvisibility の向上と広報活動によって、投稿数は順次増加し、2015年には366編に達した。これは2012年の投稿数のほぼ2倍である。投稿から出版までの時間も5ヶ月程度に短縮している。特集号を積極的に採用しすでに15テーマの特集号が立ち上がっている。今後とも、レターを重視しつつ日本地球惑星科学連合と連携をはかる。

キーワード: "Earth, Planets and Space"、オープンアクセス、研究成果公開促進費

Keywords: "Earth, Planets and Space", Open Access, Grant-in-Aid for Publication of Scientific Research Results