

INTELLECTUAL PROPERTY

Legal Issues in CITIZEN SCIENCE

What is Citizen Science?

"Citizen science* is a form of open collaboration where members of the public participate in the scientific process to address real-world problems in ways that include identifying research questions, collecting and analyzing data, interpreting results, making new discoveries, developing technologies and applications, and solving complex problems."

How Do I Use this Fact Sheet?

This fact sheet is part of a series that addresses relevant legal issues when conducting citizen science projects. The goal is to help minimize the impacts legal issues can have on citizen science projects, so these issues do not become roadblocks to the success of these projects.

These fact sheets are intended for volunteers and citizen science project leaders and researchers conducting coastal and marine science, particularly in North Carolina. However, practitioners in other disciplines and states can adapt these guidelines as appropriate for their own use.

*Source: The Federal Community of Practice on Crowdsourcing and Citizen Science at <http://www.digitalgov.gov/communities/federal-crowdsourcing-and-citizen-science/>.

INTELLECTUAL PROPERTY

Intellectual property is the intangible product of human intelligence and creation. In coastal and marine science, project coordinators should be particularly aware of two areas of intellectual property law: copyright and patent. This fact sheet focuses on copyright.

For more information on intellectual property at the state and local levels, see the accompanying North Carolina Sea Grant publication *Legal Issues in Citizen Science: A Guide for Coastal and Marine Scientists and Their Volunteers in North Carolina*.

Citizen science coordinators should be knowledgeable of the general elements of intellectual property law in order to:

1. Protect the rights of their institutions; and
2. Preemptively address any potential questions or issues volunteers or scientists may have during the life of a project.

Intellectual property rights regarding research, data and patentable subject matter gathered during citizen science endeavors is generally limited. It is important to be transparent about these rights with volunteers. In order to ensure transparency, coordinators should provide volunteers with information on applicable intellectual property issues before each project.

Coordinators also should check with their organization — whether the technology transfer office or legal counsel at

universities, or with the legal or policy review representatives at state agencies or nonprofits — for the institution's own policies and regulations on intellectual property.

What is Copyright?

The U.S. Copyright Act protects "original works of authorship fixed in any tangible medium of expression." Available to published and unpublished works, copyright protection in a work is vested from the moment of creation. This means that copyright immediately becomes property of the author who created the work.

In the context of citizen science projects, copyright protection is applicable to literary works, pictorial and graphic works, audiovisual works, and sound recordings, including animal noises. Additionally, products of citizen science projects, such as journal articles, software, research, conference papers and teaching materials, also are protected by copyright.

Generally, it is illegal for anyone to violate rights allotted to the owner of a copyright. However, these rights are subject to limitations, such as the fair use doctrine discussed below. In some cases, certain types of works are exempted altogether. For example, copyright does not extend to ideas, procedures or processes, regardless of the form in which they are presented.

The U.S. Supreme Court has ruled that copyright cannot be used to obtain a monopoly over facts. Although a researcher cannot

make a copyright claim to raw data, he or she can create a copyright interest by developing a compilation of that data. However, that data will not be protected.

One important exception to copyright law is the fair use doctrine that allows individuals to use copyrighted material without permission for specific purposes. Examples of fair use include research, teaching and scholarship. In determining whether copyrighted material falls under the fair use exemption, courts are likely to consider the following factors:

1. Purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit, educational purposes.
2. Nature of the copyrighted work.
3. Amount and substantiality of the portion used in relation to the copyrighted work as a whole.
4. Effect of the use upon the potential market for or value of the copyrighted work.

Case Study: Intellectual Property in Practice

Generally, the project's organizing entity retains the right to all copyrightable material created by the paid project members. However, coordinators can give volunteers different options if they choose.

Consider the following example of copyright ownership in the North Carolina King Tides Project (nckingtides.web.unc.edu), organized by a partnership of several federal and state agencies and nonprofit organizations.

As part of its mission, the project calls for volunteers to photograph various spots on the North Carolina coastline to track tide levels. It uses an "express waiver" to explain how volunteers' photographs will be used.

On its website, the project states, "Please understand that by sharing your photos in this group you are giving the NC King Tides Project permission to use your photos for non-commercial uses such as presentations and educational materials."



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By including such a waiver, the NC Kings Tide Project is directly referencing the fair use doctrine exemption for copyright material. The site explicitly states that all material gathered under the project falls under this doctrine.

The California King Tides Project (california.kingtides.net) uses an implied waiver. The project states how the volunteers' photographs will be used, and the entities who might use them.

Project coordinators should include similar statements with their own projects to promote transparency and avoid further conflict over ownership of intellectual property.



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For More Information

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A publication of North Carolina Sea Grant pursuant to National Oceanic and Atmospheric Administration Award No. NA10OAR4170080.



April 2016

North Carolina
Coastal Resources Law,
Planning, and Policy Center

UNC-SG-16-02



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