STEAC MEETING REPORT

(11/20/2024)

The members of the STEAC met on November 20, 2024, with a quorum of eleven members attending (Meghan Avolio, Henry Bart jr, Jennifer Edmonds, Rich Fiorella, John Kochendorfer, Shannon LaDeau, Sydne Record, Samapriya Roy, Daniel Rubenstein, Shawn Serbin, and Adrienne Sponberg,). Nine NEON-Battelle staff attended (Darcy Gora, Tristan Goulden, Christine Laney, Claire Lunch, Paula Mabee,Tanya Maslak, Chris McKay, Cove Sturtevant, and Kate Thibault).

The meeting was virtual, and the following topics were discussed: I. Approval of the minutes, II. Spring meeting planning, Boulder CO. III. Data Product Revision planning.

I.   **Approval of previous minutes for 10/16/2024:** Minutes from prior meeting were approved by STEAC by voice vote.

II. **Spring meeting planning, Boulder, CO.** STEAC was asked to provide their availability for their annual meeting with NEON in Boulder, CO targeted for Spring 2025.

III. **Data Product Revision planning.** NEON staff presented on factors that can cause data products to change over time, focusing primarily on data releases and data revisions. Data releases are made annually, capture a snapshot of the observatory in time, have their own digital object identifier (DOI), and remain static throughout time. Data releases from year to year may incorporate algorithmic updates, which may cause small changes in historical data in subsequent releases. In these cases, data product IDs will be the same across releases even though there may be slight differences in data values from one release to the next.

In contrast, data revisions refer to more substantial changes that disrupt continuity of record and are meant to signal a fundamental difference in the original and revised data products. In this case, the final three digits in the data product ID will be incremented to highlight to end-users that data before and after the revision are not directly comparable. Several categories of changes necessitating revisions were presented: a) changes in sampling design (such as switching the rodent pathogen data product from hantaviruses to tick-borne diseases), b) changes in instrumentation (e.g., new primary precipitation sensors, with an anticipated substantial increase in data quality), and c) changes in algorithm (e.g., reprocessing of AOP data with a bidirectional reflectance algorithm). Edge cases were also discussed, with NEON presenting a case for whether a revision was issued.

STEAC had several questions about communication of these changes to end users, and encouraged NEON to think about additional types of "users" (e.g., ensuring the changes were machine readable or could be used in creating knowledge graphs) in their planning. NEON indicated there are currently several potential avenues that could be used to communicate these changes (e.g., issue logs, opt-in email lists), but there was not sufficient time to cover these strategies in detail at this meeting. As a result, communication strategies by NEON will be discussed in greater detail at an upcoming meeting.