



Southern Colorado Plateau Network

INVENTORY & MONITORING DIVISION

Canyon de Chelly National Monument/NPS

Data Publication Brief - Aquatic Macroinvertebrates and Upland Vegetation/Soils

The data packages for all our long-term monitoring efforts across the Southern Colorado Plateau are the foundations for almost everything we do here. We recently underwent our biggest effort yet in reformatting our data to fit the new standards put out by the Inventory & Monitoring Division. We are proud to announce that two of our largest datasets have now been published and are available for everyone to utilize. More of our data will be available soon.

Aquatic Macroinvertebrates

Title: SCPN Aquatic Macroinvertebrate Data Package for 2007-2019

Location: <https://doi.org/10.57830/2301723>

Parks Included: BAND, CACH, GLCA, GRCA and MEVE

Overview: Aquatic and riparian habitats are among the most threatened ecosystems worldwide. Pollution, development, logging, grazing, water withdrawal, and climate change are just some of the threats they face. Because [aquatic macroinvertebrates](#) are found in all aquatic ecosystems, and because they are sensitive to environmental change, they are important indicators of aquatic ecosystem health. We monitor aquatic macroinvertebrates to detect changes in aquatic systems due to chemical, physical, and biological disturbances. In addition, long-term monitoring of aquatic macroinvertebrates complements water quality monitoring. Together, they provide a more comprehensive evaluation of aquatic system health.



Stonefly
(Koerner/
USFWS)

Data Package Includes:

- **Metadata** - An integral component to all data packages, metadata connects individual records with a larger context, describing all data therein.
- **ITISTSN and Life Stage** - This full dataset is broken down by the Integrated Taxonomic Information System (ITIS) and the Taxonomic Serial Number (TSN) of each species as well as life stage classification (adult, pupae, and larvae).
- **Summary of Abundance by Family** - This dataset summarizes information at the genus level.
- **Summary of Abundance by Functional Group** - There are five functional feeding groups that we focus on in stream ecology. Each group feeds on a different energetic input in the aquatic system and tracking differences in these groups can tell us how energy is stored in the community.

Upland Vegetation and Soils

Title: SCPN Upland Vegetation Herbaceous and Shrub Vegetation and Soils 2007-2022 Data Package

Location: <https://doi.org/10.57830/2300890>

Parks Included: AZRU, BAND, CHCU, GLCA, GRCA, MEVE, PEFO, PETR, WACA and WUPA

Overview: [Long-term vegetation monitoring](#) reveals how plant communities change over time in response to climate, disturbance, and management. Changes in vegetation, in turn, affect habitat quality for resident and migrant animal species. Monitoring soil stability and related hydrologic function provides a direct measure of the threat posed by erosion to these ecosystems.



Sego Lily
(Stallings/
NPS)

Data Package Includes:

- **Metadata** - Metadata describes all the data that is contained in the package.
- **Soil, Texture, and Depth** - We took a single soil profile sample from each plot during establishment and hand textured and described the soil in 10 cm increments.
- **Event Sampled** - This dataset provides dates that every sampling event took place.
- **Functional Groups (aka Lifeform Groups)** - Presence/absence and cover class data for annual grass, perennial grass, shrubs, and forbs.
- **Soil Stability** - Ratings that describe the erodibility of the soil surface.
- **Surface Features** - Cover of soil surface features (coarse and fine gravel, soil crust, live plant base, etc.).
- **Summary of Nested Species** - Presence/absence and cover class means for each species detected in every ecological site we sample.
- **Nested Species All** - Unsummarized cover class and presence/absence data for every species detected.