

# Siphon

## Extracting Data from THREDDS Data Servers in Multiple Ways using Python

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Siphon is a Unidata developed Python library for accessing data from THREDDS Data Servers. The THREDDS Data Server (TDS) is a web server that provides metadata and data access for scientific datasets stored in a wide range of formats, using a variety of remote data access protocols, including:

- OPeNDAP (DAP-2, DAP-4)
- CdmRemote
- NetCDF Subset Service (NCSS)
- OGC Web Map Service (WMS)
- OGC Web Coverage Service (WCS)
- Data cataloging services (TDS Catalogs)
- Metadata services (ISO, NcML, UDDC)

Each protocol offers plusses and minuses, including how the data may be subsetted spatially and temporally, and what other Python tools are needed to access the data.

QR codes link to Jupyter notebooks which demonstrate Siphon taking advantage of each data access method.

