Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest **Agriculture (REACCH PNA)**

REACCH 2014 Annual Meeting – March 5th-7th, 2014 – Richland, WA Erich Seamon, M.S. PMP GISP, - REACCH Environmental Data Manager, College of Agricultural and Life Sciences, University of Idaho erichs@uidaho.edu Paul Gessler, Ph.D. - Professor, Department of Forest, Rangeland, and Fire Sciences, College of Natural Resources, University of Idaho Von Walden, Ph.D. – Professor, Department of Civil and Environmental Engineering, Washington State University Edward Flathers, M.S. - Department of Forest, Rangeland, and Fire Sciences, College of Natural Resources, University of Idaho Stephen Fricke, M.S. – REACCH Programmer, College of Agricultural and Life Sciences, University of Idaho

this approach:



science integration:



The REACCH Interactive Python Server (Ipython – Figure 5) – is a server-side use of Interactive Python – exposed to REACCH members for collaboration and programming purposes. Interactive Python is developed by Fernando Perez at the University of Colorado at Boulder and Brian E. Granger from the Tech-X corporation (http://fperez.org/papers/ipython07_pe-gr_cise.pdf) – and is an excellent approach to enabling researchers to collaborate and interact with datasets using Python – in a web





Figure 4. REACCH Analysis Library – the REACCH Analysis Library can be found under the Resources Tab. The REACCH Analysis Library has analysis viewers as a first effort in displaying REACCH information.

https://www.reacchpna.org/resources/reacch-analysislibrary

REACCH Interactive Python Server



Figure 5. REACCH Interactive Python Server

REACCH has set up an Ipython server with several notebooks – that can be accessed here:

https://ipython.reacchpna.org

The REACCH THREDDS Data Catalog (Figure 6) is a server-side software technology that aggregates very large datasets that cannot be stored in a database or the REACCH Data Library. THREDDS – or **Th**ematic **R**ealtime **D**ata **D**istribution **S**ervices – is a java-based technology that is developed by UNIDATA – a technology wing of the National Consortium of Atmospheric Research (UCAR).

REACCH stores over 20 terabytes of climatic-based datasets (NetCDF) with our THREDDS server, which allows for aggregation and sub-setting of data based on time, geography, and other climatic-based variables.

Our THREDDS server is exposed and consumed by our REACCH Data Library – so any THREDDS data can be accessed directly from our THREDDS interface, or by searching for this data from our REACCH Data Library.

You may directly connect to our THREDDS server here:

http://thredds.reacchpna.org

National Institute of Food and Agriculture



