

SEEK - Bug #2006

workflow development for biodiversity/productivity use case

03/09/2005 04:51 PM - Deana Pennington

Status:	New	Start date:	03/09/2005
Priority:	Normal	Due date:	
Assignee:	Matt Jones	% Done:	0%
Category:	ams	Estimated time:	0.00 hour
Target version:	Unspecified	Spent time:	0.00 hour
Bugzilla-Id:	2006		

Description

Develop Kepler workflow for biodiversity/productivity use case. Involves:

composite workflow 1

a) input is multiple data sets annotated with terms from a standard ontology.

In this case, experimental data comparing species richness and productivity on control plots and treated plots with nitrogen added, from many LTER sites (Elsa Cleland will be working on these as part of her postdoc at NCEAS)

b) KR/SMS constructs an integrated dataset from the annotations

c) requires conversion of biomass and cover% values to a common measure of NPP.

We have partial details on this conversion; will be specified in full at a meeting in September (or earlier by e-mail, if we get to this earlier)

composite workflow 2

a) Input data is output from data integration piece developed in KR/SMS in

composite workflow 1

b) Construct site by species matrix

c) Use bootstrapping to calculate average number of species for different areas

d) Output species count/area data file

e) Logistic regression model of data

f) Output graph with points and curves

composite workflow 3

compare multiple graphs. Specifications to come later

composite workflow 4

link experimental findings with broad scale study of increased nitrogen deposition due to urban sprawl. Specifications to come later

Contacts:

Deana, Steve Cox (who has some of the code in R), David Chalcraft, Evan Weiher, Elsa Cleland, Katie Suding

Will hold follow up meeting in late Sep at NCEAS to further develop workflows.

History

#1 - 03/27/2013 02:18 PM - Redmine Admin

Original Bugzilla ID was 2006