Pajek datasets

Food Webs

Dataset `FoodWebs`

Description

`Chesapeake.paj` - 39 vertices, 177 (1) arcs. Web 34: Chesapeake Bay Mesohaline Net
`ChesLower.paj` - 37 vertices, 166 (1) arcs. Web 46: Lower Chesapeake Bay in Summer
`ChesMiddle.paj` - 37 vertices, 203 (2) arcs. Web 45: Middle Chesapeake Bay in Summer
`ChesUpper.paj` - 37 vertices, 206 (1) arcs. Web 44: Upper Chesapeake Bay in Summer
`CrystalC.paj` - 24 vertices, 125 (0) arcs. Web 1: Crystal River Creek (Control)
`CrystalD.paj` - 24 vertices, 100 (1) arcs. Web 2: Crystal River Creek (Delta Temp)
`Everglades.paj` - 69 vertices, 916 (5) arcs. Web 40: Everglades Graminoid Marshes
`Florida.paj` - 128 vertices, 2106 (0) arcs. Web 38: Florida Bay Trophic Exchange Matrix
`Maspalomas.paj` - 24 vertices, 82 (0) arcs. Web 39: Charca de Maspalomas
`Michigan.paj` - 39 vertices, 221 (3) arcs. Web 47: Lake Michigan Control network
`Mondego.paj` - 46 vertices, 400 (8) arcs. Web 41: Mondego Estuary - Zostrea site
`Narragan.paj` - 35 vertices, 220 (2) arcs. Web 42: Narragansett Bay Model
`Rhode.paj` - 20 vertices, 53 (0) arcs. Web 32: Rhode River Watershed - Water Budget
`StMarks.paj` - 54 vertices, 356 (3) arcs. Web 43: St. Marks River (Florida) Flow network

`baydry.paj` - 128 vertices, 2137 (0) arcs: Florida Bay, Dry Season
`baywet.paj` - 128 vertices, 2106 (0) arcs: Florida Bay, Wet Season
`cypdry.paj` - 71 vertices, 640 (0) arcs: Cypress, Dry Season
`cypwet.paj` - 71 vertices, 631 (0) arcs: Cypress, Wet Season
`gramdry.paj` - 69 vertices, 915 (5) arcs: Everglades Graminoids, Dry Season
`gramwet.paj` - 69 vertices, 916 (5) arcs: Everglades Graminoids, Wet Season
`mangdry.paj` - 97 vertices, 1491 (0) arcs: Mangrove Estuary, Dry Season
`mangwet.paj` - 97 vertices, 1492 (0) arcs: Mangrove Estuary, Wet Season

Download

Chesapeake.paj (6.571), ChesLower.paj (5.619), ChesMiddle.paj (6.255), ChesUpper.paj (6.400), CrystalC.paj (3.908), CrystalD.paj (3.420), Everglades.paj (25.286), Florida.paj (56.241), Maspalomas.paj (2.965), Michigan.paj (7.010), Mondego.paj (11.916), Narragan.paj (6.753), Rhode.paj (2.324), StMarks.paj (11.888).

baydry.paj (64.892), baywet.paj (64.281), cypdry.paj (17.882), cypwet.paj (17.497), gramdry.paj (28.069), gramwet.paj (28.685), mangdry.paj (45.683), mangwet.paj (45.925).

Complete datasets: Food-webs (ZIP, 55K), ATLSS (ZIP, 90K)

Background The food-webs were selected from the R.E. Ulanowicz's Collection from the Ecosystem Network Analysis site and from ATLSS - Network Analysis of Trophic Dynamics in South Florida Ecosystems.

The original data are in SCOR format. They were transformed using program Scor2Paj into corresponding Pajek project files. Besides the network description, described by the exchange flow from the donor to recipient compartments, every `paj` file contains also a vector of values

for the bio-masses of each vertex (compartement), and a partition of vertices into types

```
1 - Living/producing compartment
2 - Other compartment
3 - Input
4 - Output
5 - Respiration
```

History

1. Original food-web data collected and published by different researchers - see **Food-web data descriptions**.
2. **datall.dat** version 22. July 2002 by R.E. Ulanowicz.
3. Selected SCOR files from **datall.dat** transformed in Pajek project format: V. Batagelj, 14-15. July 2003.
4. SCOR files from **ATLSS** transformed in Pajek project format: V. Batagelj, 13. June 2004.

References

1. EcoNetwrk A Windows-compatible tool to analyze ecological flow networks.
2. ATLSS Network Analysis of Trophic Dynamics in South Florida Ecosystems.
3. Carlos J. Melia'n, Jordi Bascompte: *Food Web Cohesion*. Ecology, 85(2), 2004, pp. 352-358. (PDF).
4. Mixed references from the SFI Paleo-Food Webs list.

Food-web data descriptions:

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2. Baird D. & Ulanowicz R.E. (1989) The seasonal dynamics of the Chesapeake Bay ecosystem. *Ecological Monographs* 59:329-364. **[Chesapeake Bay]** [PDF]
3. Baird, D., J. Luczkovich and R. R. Christian. (1998) Assessment of spatial and temporal variability in ecosystem attributes of the St Marks National Wildlife Refuge, Apalachee Bay, Florida. Estuarine, Coastal, and Shelf Science 47: 329-349. **[St Marks River Estuary]** [HTML]
4. Correll, D. (Unpublished manuscript) Smithsonian Institute, Chesapeake Bay Center for Environmental Research, Edgewater, Maryland 21037-0028 USA. **[Rhode River]**
5. Hagy, J.D. (2002) Eutrophication, hypoxia and trophic transfer efficiency in Chesapeake Bay PhD Dissertation, University of Maryland at College Park (USA), 446 pp. **[Chesapeake Bay: Lower, Middle, Upper]**
6. Homer, M. and W.M. Kemp. Unpublished Ms. See also Ulanowicz, R.E. 1986. Growth and Development: Ecosystems Phenomenology. Springer, New York. pp 69-79. **[Crystal River Creek]**
7. Krause, A. and D. Mason. (In preparation.) A. Krause, PhD. Dissertation, Michigan State University. Ann Arbor, MI. USA **[Lake Michigan]**
8. Monaco, M.E. and R.E. Ulanowicz. (1997) Comparative ecosystem trophic structure of three U.S. Mid-Atlantic estuaries. Mar. Ecol. Prog. Ser. 161:239-254. **[Narragansett Bay]**
9. Patricio, J. (In Preparation) Master's Thesis. University of Coimbra, Coimbra, Portugal. Email: . **[Mondego Estuary]**
10. Ulanowicz, R.E., J.J. Heymans, and M.S. Egnotovich. (2000) Network Analysis of Trophic Dynamics in South Florida Ecosystems, FY 99: The Graminoid Ecosystem. Ref. No. [UMCES] CBL 00-0176. Chesapeake Biological Laboratory, Solomons, MD 20688-0038 USA. **[Everglades]** [HTML]
11. Ulanowicz, R.E., C. Bondavalli and M.S. Egnotovich. (1998) Network Analysis of Trophic Dynamics in South Florida Ecosystem, FY 97: The Florida Bay Ecosystem. Ref. No. [UMCES]CBL 98-123. Chesapeake Biological Laboratory, Solomons, MD 20688-0038 USA. **[Florida]** [HTML]

12. Christian R.R. & Luczkovich J.J. (1999) Organizing and understanding a winter's seagrass foodweb network through effective trophic levels. *Ecological Modelling* 117: 99-124. **[St. Mark's Seagrass]** [PDF]

Pajek Data; Pajek Home

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