Making Biodiversity Cards

EOL Biodiversity Cards provide species trait information in a friendly, playing card format. They can be collected and traded, used as species identification field guides, and used as educational tools both in and out of the classroom. You can print out pre-made cards from our public decks or create your own. If you plan to make your own cards, we have the following resources:

Eastern Newt	Alpine Rose	Black Carpenter Ant
Notophthalmus viridescens — Amphibians	*Rhododendron ferrugineum* — Flowering Plants	*Camponotus pennsylvanicus* — Insects

Eastern Newt

Food Web Role: CARN — Vernal Pool — IUCN Status: LC

Snout-vent Length	7.0 - 12.4 cm
Adult Habitat	Semi-aquatic
Development	Indirect
Number of Eggs	200 - 300; 1/yr
Activity	Nocturnal

Adaptations & Energy Sources
Physical: Born with feathery gills, later develop lungs
Behavioral: Adult newts return permanently to water
Energy: Insects, mollusks, crustaceans, zooplankton

Image: 2010 Todd Pierson CC-BY-NC-SA

Alpine Rose

Food Web Role: AUTO — Alpine — IUCN Status: LC

Height	50 - 130 cm
Growth Form	Shrub
Leaf Duration	Evergreen
Flower Color	Deep pink
Sunlight/Soil	Full sun; moist

Threats + Adaptability
Major threats: Grazing, climate change
Adaptability: Tolerant to low winter temperatures
Population trend: Globally stable

Image: H. Krisp CC-BY

Black Carpenter Ant

Food Web Role: OMNI — Urban — IUCN Status: NE

Adult Body Length	0.5-1.6 cm, workers
Development	Complete
Adult Lifespan	0.5-7 yrs, queen
Number of Eggs	5-15+; twice/yr
Wings	Males/sexual females

Adaptations & Energy Sources
Physical: Antennae are used for communication
Behavioral: share regurgitated food; higher immunity
Energy: Insects, larvae, nectar, fruit, fungi

Image: Patrick Coin CC-BY-NC-SA

Example Cards

- These cards show the default traits for each common taxon group
- You can use the same traits as displayed in this example, or customize them based on the needs of your project

Resources for Trait Research

Once you have chosen your species, the next step is to collect trait data about the species to populate the cards.

- This document lists reliable web resources to collect the trait data, organized by taxon
- A great place to start is the EOL data tab for each species of focus
- This document contains definitions for common biodiversity-related vocabulary words that you might encounter during research; these are also good terms to use if you make a Vocabulary Card in your deck

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Trait Data Organizers

- This document is a simple organizer to collect information for one species at a time (recommended for teachers/classroom activities with students making one card)
- This spreadsheet is a simple template to collect information for multiple species, organized into common taxon groups with EOL trait standards (recommended for beginners making a full card deck)
- This spreadsheet is a comprehensive template to collect information for multiple species, organized into a greater depth of taxon groups with EOL trait standards (recommended for experienced users making one or multiple full card decks)
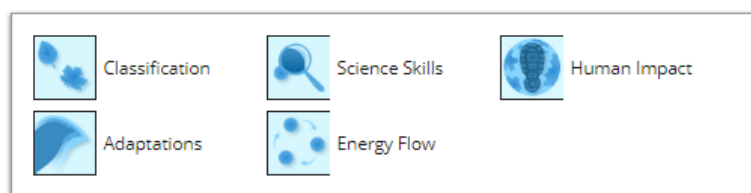
Help Making Cards and Decks

- Once you have completed your research, you are ready to enter your data into species cards using the EOL Card Maker
- If you are working with younger students or don't have access to computers, you can use the blank card templates
- View our tutorials for step-by-step instructions about how to navigate the Card Maker tool
    - Tutorial #1: An Introduction to Encyclopedia of Life Biodiversity Cards
    - Tutorial #2: How to Make Encyclopedia of Life Biodiversity Cards

Using your Cards

- Use our various lesson plans to engage students grades 2-12 with Biodiversity Cards, focusing on five important biological themes
- Make cards of local organisms and use them as field guides to help students identify organisms during a walk in the school yard or to share with your local conservation organization

For additional information, contact:
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