



# The Ecologist's Career Compass

**Number of players:** 2 or more

**Material:** 33 career cards, 7 joker cards and a six-sided dice

**Goal:** Collect the highest number of cards. The game ends when one player has no card left. In a two-player game, the other player wins. In a multiplayer game, the player with the highest number of cards wins.

## Game rules:

The game is similar to an ordinary **trump card game**, where at each round the players match skill-for-skill and the highest skill score wins. Unlike classic trump games, competing skills in this game are not selected by the players, but by a roll of the dice.

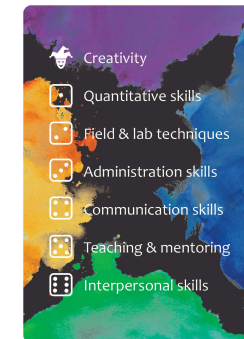
**Start of the game:** All 33 **career cards** are shuffled and dealt face down. The players take their cards as a closed package in their hand, so that no one else can see the top card. Before beginning the game, one of seven **joker cards** is selected (either randomly or as wished by the players). The joker card determines the assignment of skills. The joker skill is used in case of a tie between players (see below for an example).

**Example round:** The players pick *Creativity* as the joker skill. The dice is rolled and shows a one, which in this case means the category *Quantitative skills*, thus the players should read out the skill level for this category on their top card. If two or more players have an equal skill level, then these players read the skill level for *Creativity* (the joker skill in this example). The player with the highest skill level receives the card(s) of the other player(s). Then the dice is thrown again ...

Career card



Joker card



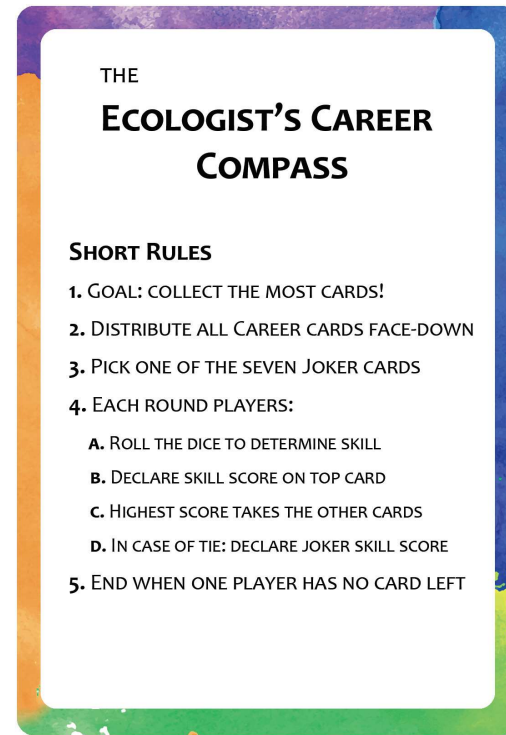
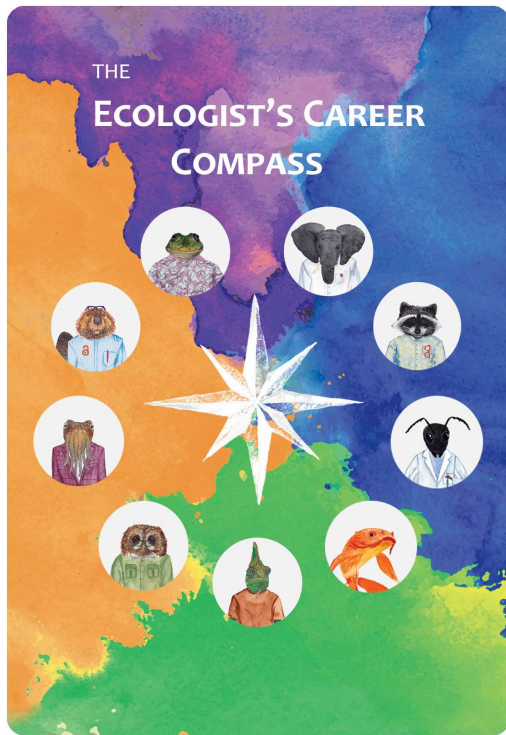
**What happens if the skill levels for the joker skill are also equal?** In such a case, the top cards of all players are thrown in the middle to form a stack. Those players who had the same highest skill level for the joker skill now continue to play for the stack with the next card in their hands. Once the stack is won by one of the players, the game continues as described above.

**Players who have only three cards left** can choose which of the cards to take, so under this special situation not only the top card is relevant but all three remaining cards. In this case, the player with only three cards left can choose not only which card to read but also which card to give away if losing the round, and the second can be different than the first.

Additional information about the game is provided in an accompanying paper: Itescu, Y.; Bernard-Verdier, M.; Moesch, S.S.; Mrugała, A.; Mrugała, K.; Musseau, C.L.; Jeschke, J.M. The Ecologist's Career Compass: a card game to explore career paths.

This game emerged from discussions in our Ecological Novelty group in Berlin, Germany, on ecological career paths. All of us contributed equally to it, while Kinga Mrugała artistically designed the cards. If you would like to contact her, e.g. for another art-design project, you can reach her under: [kinga.mrugala@gmail.com](mailto:kinga.mrugala@gmail.com)

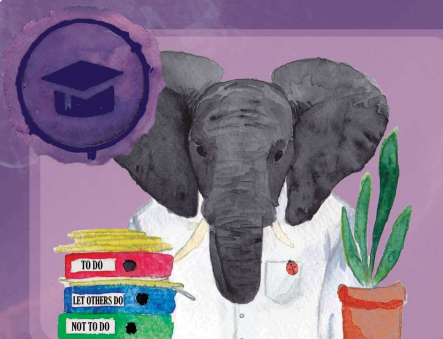
If you have further questions about the game, you may contact any one of us. For simplicity we only provide Jonathan Jeschke's e-mail here: [jonathan.jeschke@igb-berlin.de](mailto:jonathan.jeschke@igb-berlin.de)





- 
-  Creativity
  -  Quantitative skills
  -  Field & lab techniques
  -  Administration skills
  -  Communication skills
  -  Teaching & mentoring
  -  Interpersonal skills

-  Creativity
-  Quantitative skills
-  Field & lab techniques
-  Administration skills
-  Communication skills
-  Teaching & mentoring
-  Interpersonal skills



### COORDINATOR

Head of administration,  
Science officer, Research manager,  
Coordinator of research project or study program

### REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★★
Field & lab techniques	★★★
Administration skills	★★★
Communication skills	★★★
Teaching & mentoring	★★★
Interpersonal skills	★★★



### DATA SCIENTIST

Biostatistician, Bioinformatician,  
Data analyst, Data manager, Data steward,  
Data technician, Scientific programmer

### REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### EDUCATOR

Lecturer at university or college

### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### MANAGER

Field station manager, Project manager,  
Laboratory technical manager,  
Collection manager, Financial manager

### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### RESEARCHER

Professor, Scientist, Postdoc at university,  
college or public research institute

### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### SCIENCE COMMUNICATOR

Science communicator,  
Public relations officer,  
Content developer

### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



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FRONT SIDE

TECHNICIAN

Lab technician,  
Field technician,  
Research engineer

REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★
Interpersonal skills	★★★

COORDINATOR

Project coordinator at governmental organization,  
Funding coordinator/administrator

REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

DATA SCIENTIST

Data analyst, Data steward,  
Data scientist,  
GIS analyst

REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

EDUCATOR

Teacher at a public school,  
Educator in zoo, aquarium  
or natural history museum

REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

MANAGER

Conservation manager, Restoration manager,  
Land resource manager, Collection manager,  
Laboratory manager, Education manager

REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★

POLICY MAKER/ADVISOR

Ecological advisor, City ecologist,  
Environmental consultant,  
Science-policy officer

REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★

RESEARCHER

Researcher at governmental organization,  
Museum curator

REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★

SCIENCE COMMUNICATOR

Communication advisor,  
Public information officer,  
Public relations officer

REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★



### TECHNICIAN

Field ecologist,  
Field technician,  
Lab technician

#### REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★
Field & lab techniques	★★★★★
Administration skills	★★★
Communication skills	★★★
Teaching & mentoring	★★★
Interpersonal skills	★★★

### COORDINATOR

Project coordinator at NGO (e.g. environmental education, conservation, monitoring, experiments),  
Funding coordinator

#### REQUIRED SKILLS

Creativity	★★
Quantitative skills	★★
Field & lab techniques	★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### DATA SCIENTIST

General data scientist,  
Environmental informatician,  
GIS analyst

#### REQUIRED SKILLS

Creativity	★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### EDITOR/PUBLISHER

Editor/publisher at NGO  
including scientific societies  
(e.g. books, reports, journals, websites)

#### REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★
Field & lab techniques	★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### EDUCATOR

Environmental educator (e.g. in collaboration with educational institutions like schools/universities),  
Guide in conservation areas

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★
Field & lab techniques	★★★
Administration skills	★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### MANAGER

Project manager at NGO (e.g. environmental education, conservation, monitoring),  
Nature park manager, Conservation officer

#### REQUIRED SKILLS

Creativity	★★★
Quantitative skills	★★★
Field & lab techniques	★★★
Administration skills	★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### POLICY MAKER/ADVISOR

Policy advisor (science diplomacy, regional or international policy, environmental law),  
Lobbyist

#### REQUIRED SKILLS

Creativity	★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

### RESEARCHER

Researcher at non-governmental organization (NGO)

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★

FRONT SIDE





### SCIENCE COMMUNICATOR

Social media/Public relations or Marketing for non-governmental organization (NGO) including scientific societies

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### TECHNICIAN

Laboratory or field technician at non-governmental organization (NGO)

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★




### COORDINATOR

Project coordinator at private company/start-up, Entrepreneur, Coordinator for funding, ecological monitoring or conservation volunteers

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### DATA SCIENTIST

Environmental informatician, GIS analyst, Research and development analyst, Data analyst, Software developer

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### EDITOR/PUBLISHER

Editor or Copy editor (e.g. scientific books, private scientific journals or popular science magazines)

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### EDUCATOR

Educator in zoo, aquarium or natural history museum, Biology teacher (private schools, freelance), Environmental educator, Nature guide

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★




### MANAGER

Restoration manager, Natural resource manager, Quality assurance manager, Operations manager, Zoo or aquarium manager

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### POLICY MAKER/ADVISOR

Environmental or sustainability consultant, Business advisor

#### REQUIRED SKILLS

Creativity	★★★★★
Quantitative skills	★★★★★
Field & lab techniques	★★★★★
Administration skills	★★★★★
Communication skills	★★★★★
Teaching & mentoring	★★★★★
Interpersonal skills	★★★★★



### RESEARCHER

Researcher at private company (e.g. biotechnology, agriculture, health & epidemiology, environment, hydrobiology), Museum curator

#### REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★ ★★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★



### SCIENCE COMMUNICATOR

Content developer, Medical/technical writer, Popular science writer, Science journalism, Marketing for ecotourism

#### REQUIRED SKILLS

Creativity	★★★★
Quantitative skills	★★★★
Field & lab techniques	★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★



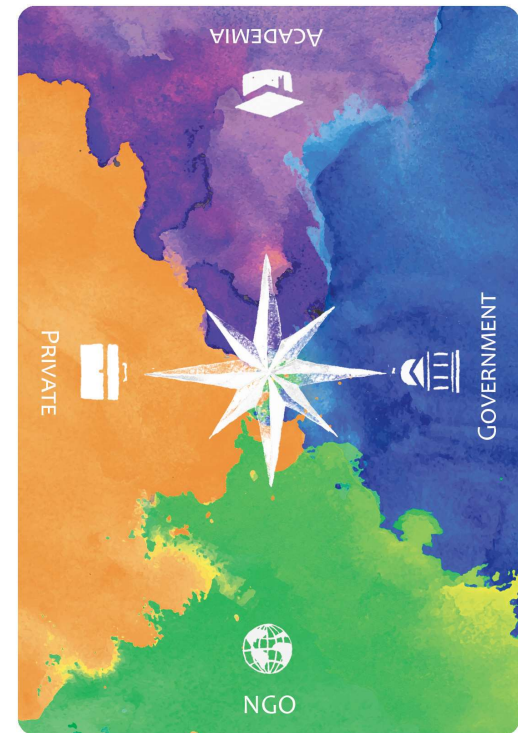
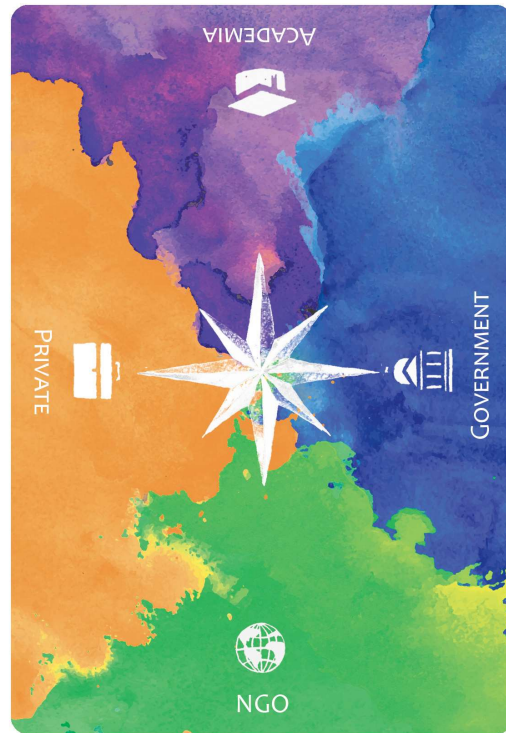
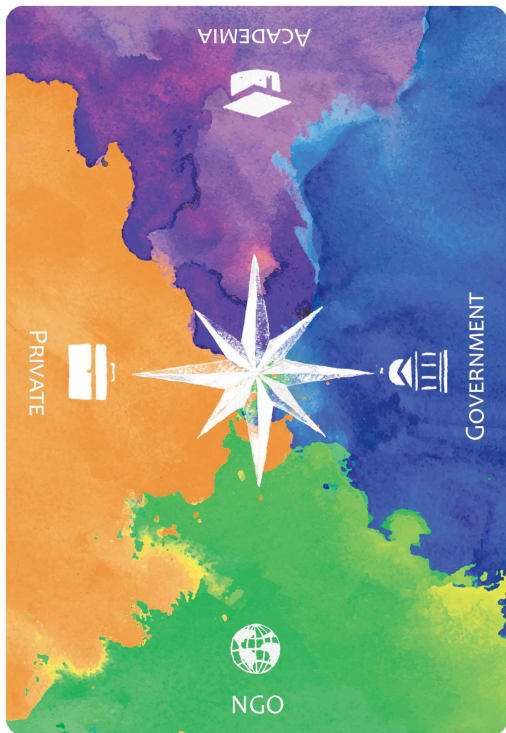
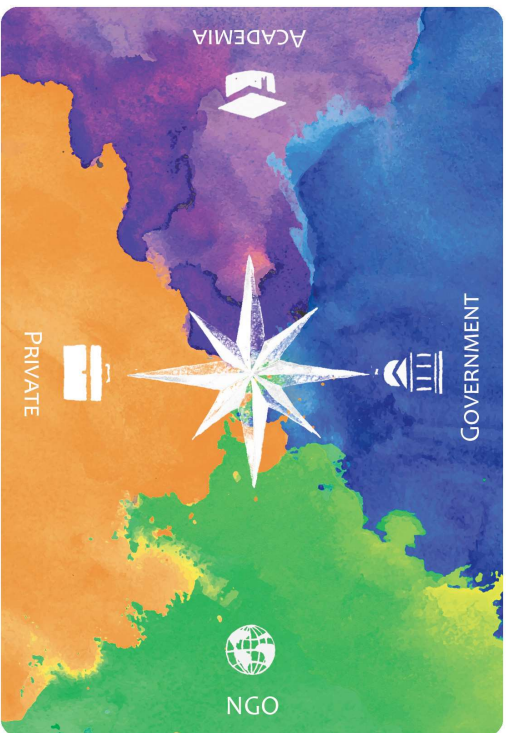
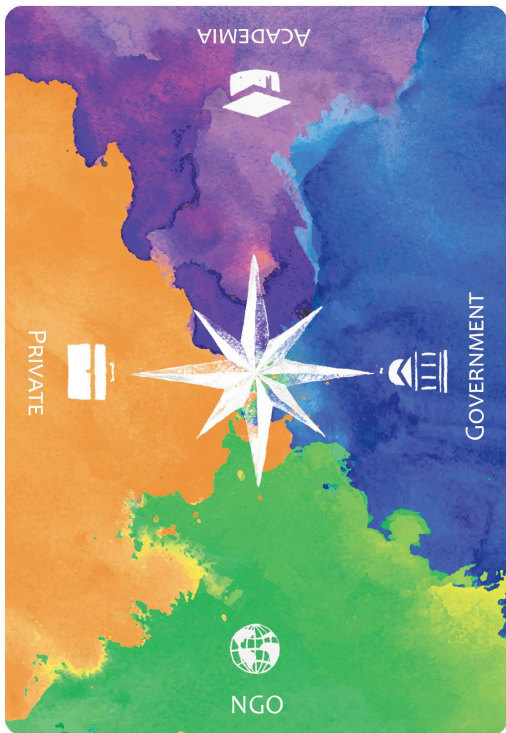
### TECHNICIAN

Field technician (e.g. ecological surveys), Laboratory technician, Medical technician, Animal care technician, Veterinary technician

#### REQUIRED SKILLS

Creativity	★★
Quantitative skills	★★
Field & lab techniques	★ ★★★★★
Administration skills	★★★★
Communication skills	★★★★
Teaching & mentoring	★★★★
Interpersonal skills	★★★★





BACK SIDE