WORLD SCIENCE FESTIVAL CORAL REEF DECK – PRINT VERSION

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THIS DOCUMENT INCLUDES 1 PAGE SPECIAL CORAL REEF INSTRUCTIONS, 9 PAGES OF CARDS (54 PHYLO CARDS) AND 1 CARD BACK PAGE (11 PAGES TOTAL)

NOTE THAT CARD SIZE IS IDENTICAL TO THAT OF POKEMON CARDS (62 mm x 87 mm or 2 7/16 inches x 3 7/16 inches).

WE RECOMMEND PRINTING THESE CARDS, IN COLOUR, ON 65LB+ WHITE CARD STOCK.

USING CARD SLEEVE PROTECTORS (~64mm x 89mm) OR LAMINATING CARDS WILL ALSO GREATLY ENHANCE THE FEEL OF THE CARDS.

FOR MORE CARDS, GAME RULES, AND GENERAL INFORMATION ABOUT THE PHYLO PROJECT, PLEASE GO TO:

http://phylogame.org

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WORLD SCIENCE FESTIVAL/CORAL REEF EDITION

In general, coral reef ecosystems consist of plankton living together with corals, with Zooxanthellae playing an especially important role in warmer coral ecosystems. From this basic relationship, many other organisms can also take part in the ecosystem, including algae, fish, crustacea, and sharks. With this game, the purpose is to try and place as many of your species cards on the table, all the while making sure your species cards have something to sustain (feed) them. As well, there are EVENT cards, which can change things up a bit. When these are played, you may find that many of your food chains are disrupted, which may mean the loss of cards and therefore loss of points. Consequently, the Phylo game is all about building these chains, and also seeing how different things can affect them.

CORAL REEF PHYLO RULES (see http://phylogame.org for more details)

Place two ZOOXANTHELLAE CARDS in the center. ONE FACING EACH PLAYER.

Each Player picks up 5 cards and put the rest of the cards in a pile called the PICK-UP DECK. Cards that are removed from the game go into a DISCARD PILE.

The two players will take turns. In each TURN, they can pick up a new card and make 3 ACTIONS.

ACTIONS YOU CAN MAKE:
- PLAY a card in your hand onto the table (make sure you play them facing you).
- DROP a card in a DISCARD PILE and PICK UP three cards.
- MOVE a card (# of moves is on the card itself). MOVE# tells you how many spots the card can move. Up down left right movement only (no diagonal), and it must end up in a free space.
- You may PASS.

Once all the cards are finished in the PICK UP PILE, and no more moves can be made, pick up all the cards Facing YOU and add up all the points. Person with the most points WIN!

PLAYING A CARD

FOODCHAIN#1 cards can be played anywhere as long as it is placed adjacent to a card with at least 1 temperature and 1 terrain MATCH (this makes it compatible). NOTE that all Coral cards are OCEAN terrain.

FOODCHAIN#2 cards must be placed next to at least 1 compatible FOODCHAIN#1 cards.

FOODCHAIN#3 cards must be placed next to at least 1 compatible FOODCHAIN#2 cards. Usually, FOODCHAIN#3 cards are carnivores (meat-eating): unless specified on card, this also means that it can only be played next to prey of equal or smaller SCALE.

Note that there are exceptions to these general placement rules. For example, omnivores (brown circle) are FOODCHAIN#3 but can technically be played next to plants of FOODCHAIN#1. Other exceptions may be highlighted in the card text.

In general, whether a card can be played (or needs to be discarded) depends on whether it is next to something that can sustain it. Also NOTE that it's o.k. to place your card next to opponent's cards.

Yellow = Photosynthesis
Green = Herbivore (eats plants)
Brown = Omnivore (eats plants and animals)
Red = Carnivore (eats animals)
Black = "special" usually described on the card

When an EVENT card is played, unless specified differently, the effect is immediate and then the EVENT card is removed from the table (into discard pile). Sometimes, the effect will result in broken food chains. Here, the opposing player has their next TURN to react to the EVENT card, before disconnected cards are removed (i.e. they can play a substitute card to replenish the food chains, or they can move cards to areas on the table that provide compatible linkage.

![Common Name Latin Name](image.png)

#SCALE
COMMON NAME
LATIN NAME

ADDITIONAL TEXT, SPECIAL KEYWORDS, TRIVIA, ETC
ARTIST INFORMATION

#FOODCHAIN AND DIET COLOUR

YELLOW: Photosynthetic
BLACK: special - see text
GREEN: Herbivore
BROWN: Omnivore
RED: Carnivore

EVOLUTIONARY TREE INFORMATION

POINT VALUE

CLIMATE

TERRAINS
Brain Coral
Diploria strigosa

6
2

• Acropora millepora is a WARM WATER CORAL SPECIES.
• Acropora millepora is a SUSPENSION FEEDER and must be played adjacent to at least 1 ZOAXANTHELLEAE PLANKTON SPECIES.

Maiden’s Hair
Chlorodesmis fastigiata

5
1

• Chlorodesmis fastigiata is an ALGAE and PLANKTON SPECIES.
• Chlorodesmis fastigiata is OPPORTUNISTIC and may be played on top of other PLANKTON cards (discard other PLANKTON card).

Brown Macroalgae
Sargassum spp.

8
1

• Sargassum spp. is an ALGAE and PLANKTON SPECIES.

Coralline Algae
Porolithon spp.

4
1

• Porolithon spp. is an ALGAE and PLANKTON SPECIES.

Cyanobacteria
Prochlorococcus spp.

1
1

• Prochlorococcus spp. is a PLANKTON SPECIES.
Venus Sea Fan
Gorgonia flabellum
Animalia, Cnidaria, Anthozoa

6 POINTS
- Gorgonia flabellum is a WARM WATER CORAL SPECIES.
- Gorgonia flabellum is a SUSPENSION FEEDER, and must be played adjacent to at least 1 ZOOXANTHELLAE PLANKTON SPECIES.

Image by Joe Klee

Star Coral
Monastrea cavernosa
Animalia, Cnidaria, Anthozoa

6 POINTS
- Monastrea cavernosa is a WARM WATER CORAL SPECIES.
- Monastrea cavernosa is a SUSPENSION FEEDER, and must be played adjacent to at least 1 ZOOXANTHELLAE PLANKTON SPECIES.

Image by Jonny Mirtosi

Staghorn Coral
Acropora millepora
Animalia, Cnidaria, Anthozoa

6 POINTS
- Acropora millepora is a WARM WATER CORAL SPECIES.
- Acropora millepora is a SUSPENSION FEEDER, and must be played adjacent to at least 1 ZOOXANTHELLAE PLANKTON SPECIES.

Image by Emilia Clark
Bottom Trawling
Event Card

PLAY: On 1 COLD WATER CORAL SPECIES card, and then discard.

EFFECT: The played CORAL SPECIES card, as well as one other adjacent card of your choice, are discarded immediately.

Image by Jeffery V. Kaye

Rising Ocean Temperature
Event Card

PLAY: On 1 PLANKTON SPECIES card, and then discard.

EFFECT: The played PLANKTON SPECIES card is discarded immediately.

Image by Jeffery V. Kaye

Rising Ocean Temperature
Event Card

PLAY: On 1 PLANKTON SPECIES card, and then discard.

EFFECT: The played PLANKTON SPECIES card is discarded immediately.

Image by Jeffery V. Kaye

Ocean Acidification
Event Card

PLAY: On 1 PLANKTON SPECIES card, and then discard.

EFFECT: The played PLANKTON SPECIES card is discarded immediately.

Image by Jeffery V. Kaye

Ocean Acidification
Event Card

PLAY: On 1 PLANKTON SPECIES card, and then discard.

EFFECT: The played PLANKTON SPECIES card is discarded immediately.

Image by Jeffery V. Kaye
Bubble-Tip Anemone
*Entacmaea quadricolor*

Annelida, Cnidaria, Anthozoa

4 POINTS
- *Entacmaea quadricolor* is a **SUSPENSION FEEDER** and **CARNIVORE** of small animals.
- It must be played adjacent to at least 1 compatible **PLANKTON SPECIES** or 1 compatible crustaceae or actinopterygii **SPECIES** of **SCALE** 4 or less.

Image by Melissa Baran

Spinyhead Blenny
*Acanthemblemaria spinosa*

Annelida, Chordata, Actinopterygii

4 POINTS
- *Acanthemblemaria spinosa* has a **MOVE** of 2.
- It must be played adjacent to at least 1 compatible **PLANKTON SPECIES** or 1 compatible crustaceae **SPECIES** of **SCALE** 4 or less.

Image by Joe Kujo

Crown of Thorns Starfish
*Acanthaster planci*

Annelida, Echinodermata, Asteroidea

8 POINTS
- *Acanthaster planci* must be (played) adjacent to at least 1 compatible **WARM WATER CORAL SPECIES**.
- Or, *Acanthaster planci* is **OPPORTUNISTIC**. Place on top and discard any compatible **WARM CORAL SPECIES**.

Image by Jenny Mortard

Whale Shark
*Rhincodon typus*

Annelida, Chordata, Chondrichthyes

6 POINTS
- *Rhincodon typus* has a **MOVE** of 2.
- *Rhincodon typus* is a **FILTER FEEDER**, and needs to be played adjacent to at least 1 compatible **PLANKTON SPECIES**.

Image by Mak Nara

Bluebell Sea Squirts
*Clavelina moluccensis*

Annelida, Chordata, Asciidiacea

5 POINTS
- *Clavelina moluccensis* is a **FILTER FEEDER**, and needs to be played adjacent to at least 1 compatible **PLANKTON SPECIES**.

Image by Eniko Darak

Sea Sparkle
*Noctiluca scintillans*

Chromalveolata, Dinoflagellata, Noctiluca phyla

5 POINTS
- The bioluminescence of *Noctiluca scintillans* is a **PLANKTON** that feeds off other **PLANKTON SPECIES**.
- It must be played adjacent to at least 1 compatible **PLANKTON SPECIES**.

Image by Joe Kujo
Nudibranch
Nembrotha cristata

POUNTS
- Nembrotha cristata has a MOVE of 1.
- Nembrotha cristata can only prey on compatible CORAL or SPONGE SPECIES cards (must be played adjacent to one of these regardless of SCALE).

Stoplight Parrotfish
Sparisoma viride

POUNTS
- Sparisoma viride has a MOVE of 2.
- Sparisoma viride eats ALGAE and CORAL, and must be placed adjacent to at least 1 compatible ALGAE or CORAL species card (irrespective of SCALE).

Flamingo Tongue Snail
Cyphoma gibbosum

POUNTS
- Cyphoma gibbosum has a MOVE of 1.
- Cyphoma gibbosum eats CORAL, and must be placed adjacent to at least 1 compatible CORAL species card (irrespective of SCALE).

Pajama Cardinalfish
Sphaeramia nematoptera

POUNTS
- Sphaeramia nematoptera has a MOVE of 2.
- Sphaeramia nematoptera can only prey on compatible SPECIES with a SCALE of 4 or 5.

Feather Duster Worm
Sebellastarte magnifica

POUNTS
- Sebellastarte magnifica is a SUSPENSION FEEDER, and needs to be played adjacent to at least 1 compatible PLANKTON SPECIES.

Christmas Tree Worm
Spirobranchus giganteus

POUNTS
- Spirobranchus giganteus is a SUSPENSION FEEDER, and needs to be placed adjacent to at least 1 compatible PLANKTON SPECIES.
Lophelia Coral
Lophelia pertusa
Animalia, Echinodermata, Asteroidea

5 POINTS
- Lophelia pertusa is a COLD WATER CORAL.
- Lophelia pertusa is a SUSPENSION FEEDER, and needs to be played adjacent to at least 1 compatible PLANKTON SPECIES.

Sea Cucumber
Bohadschia argus
Animalia, Echinodermata, Holothuroidea

3 POINTS
- Bohadschia argus has a MOVE of 1.
- Bohadschia argus is a SCAVENGER. If removed due to a consequence of an EVENT card, return to your hand.

Spiny Lobster
Panulirus argus
Animalia, Arthropoda, Crustacea

7 POINTS
- Panulirus argus has a MOVE of 1, and can only prey on SPECIES with a SCALE of 4 or 5.
- Panulirus argus is a SCAVENGER. If removed due to a consequence of an EVENT card, return to your hand.

Tiger Shark
Galeocerdo cuvier
Animalia, Chordata, Chondrichthyes

8 POINTS
- Galeocerdo cuvier has a MOVE of 2.
- Galeocerdo cuvier can only prey on compatible SPECIES with a SCALE of 5 or higher.

Bigfin Reef Squid
Sepioteuthis lessoniana
Animalia, Mollusca, Daphnida

8 POINTS
- Sepioteuthis lessoniana has a MOVE of 2.
- Sepioteuthis lessoniana can only prey on compatible crustacea and actinopterygii SPECIES with a SCALE of 4 or higher.

Clown Triggerfish
Balistoides conspicillum
Animalia, Chordata, Actinopterygi

8 POINTS
- Balistoides conspicillum has a MOVE of 2.
- Balistoides conspicillum can only prey on compatible SPECIES with a SCALE of 4 or 5.
**Too Many Scuba Divers**
Event Card

**PLAY:** On 1 WARM WATER CORAL SPECIES card, and then discard.

**EFFECT:** The played CORAL SPECIES card is discarded immediately.

**Image by Richard Loo**

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**Algae Takeover**
Event Card

**PLAY:** can be played for below effect and then discarded.

**EFFECT:** Use any 1 ALGAE card in your hand. OR any 1 ALGAE card on the table. Place on top of any compatible CORAL cards. Discard CORAL card; leave ALGAE card in its place.

**Image by Zupor Graphics & Flygon**

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**Marine Protected Area**
Event Card

**PLAY:** You may play this card immediately after your opponent has played an EVENT card on one of your SPECIES.

**EFFECT:** Negates the effect of the EVENT card. Does not work on EVENT cards that are not played specifically on top of a SPECIES.

**Image by U.S. Fish & Wildlife Service**

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**Coastal Development**
Event Card

**PLAY:** can be played for below effect and then discarded.

**EFFECT:** Discard any 1 CORAL SPECIES card on the table. If you have a compatible ALGAE SPECIES card in your hand, you may play it in the open spot.

**Image by Adam Hill**