The rules - Headings are in **bold**.
All of the important rules, those you need to read before you can start to play are in normal black type, with the especially important points <u>underlined</u>.

The more obscure rules, background and some of the notes, hints and examples are in *blue italics*. If you are learning the game you can skip these sections initially and refer to them later.

Background

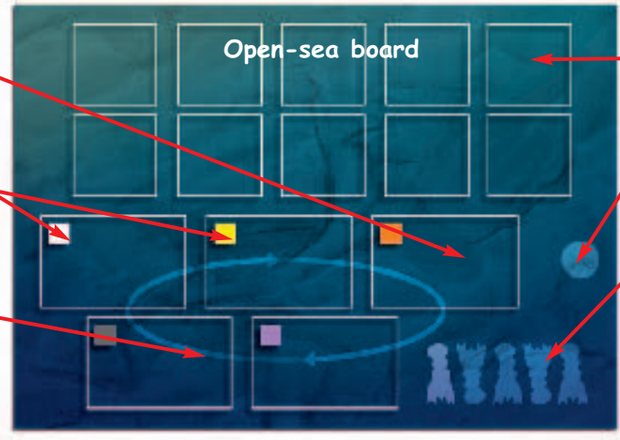
They may seem like an underwater paradise, but coral reefs are in fact perpetual battlegrounds - for space. In these crowded, frenetic communities, every individual, even the corals, have to fight for it.
Coral larvae drift through the open-sea floating in a soup of minute marine animals. When one of these larvae settles in a suitable spot and survives, a new reef is founded. It takes just a few days for a coral larva to change form and become a polyp. Identical copies then bud off and gradually a colony develops. Each separate polyp surrounds itself with a hard skeleton that can grow at a rate of up to fifteen centimeters a year.
Coral feed at night and each polyp uses its stinging cells to draw plankton into its mouth. None of the corals however could lay down their stony skeletons at the rate they do without help, as they simply could not acquire enough food to grow that fast.
The help comes from millions of single celled algae, called zooxanthellae, which live within the coral tissues.
Corals frequently overgrow each other - and that means trouble. When they get too close corals can detect each other chemically. The aggressor polyps then extrude their guts and simply digest their rivals alive.
Corals provide the basis on which the entire reef community survives. Many creatures live within the coral and some will even protect their coral hosts from attack, such as the shrimps in the game. For others however the coral provides food. Parrotfish for example have jaws so powerful that they can bite through rock and coral alike in their quest for algae and, in doing so, play a large part in the erosion of a reef. The consumed rock and coral will emerge later from the parrotfish as a fine sand which contributes to the tropical beaches we find so alluring.

Overview

Reef Encounter is a game for two to four players. Once you are familiar with the rules, the game will last approximately 90 minutes.
In Reef Encounter the aim is to grow the largest and strongest corals on the reef and then to feed these to your parrotfish in the brief time available. Points are awarded at the end of the game for the number and type of polyps that your parrotfish has consumed.
Each turn new coral larvae drift into the game. Larva cubes allow players to play their polyp tiles onto the boards and create new and larger corals. Shrimps will then colonize these corals and protect the corals from attack.

<u>A coral consists of one or more connected polyp tiles.</u> Corals that are two or more polyps in size may attack other weaker types of coral. Polyps from a defeated coral can be recycled as new polyps or alternatively used to obtain alga cylinders or larva cubes.
It is the alga cylinders, which will strengthen some types of corals relative to the other types. An alga cylinder can also fix the hierarchy between two particular types of coral for the remainder of the game.
Reef Encounter will usually end once the hierarchy of all the corals is established or once one player's parrotfish has consumed four corals.

Contents



Place new polyp tiles in these five spaces.

Place new larva cubes of the corresponding color in these five spaces.

Arrows indicate the order in which the polyp tiles are placed in the five large spaces at the beginning of the game. (See Set up on page 3.)

Place the coral tiles in these ten spaces.

Space for a single alga cylinder.

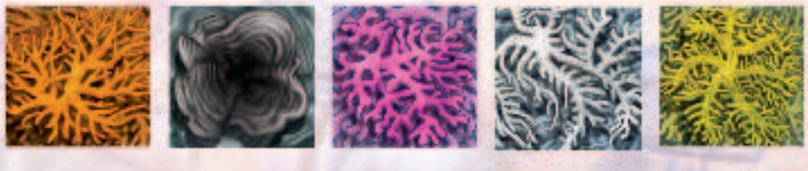
Spaces for players to place the first of their shrimps to be eaten by their parrotfish.

16 wooden shrimps - 4 in each of the four player colors: purple, green, red and yellow.

20 wooden alga cylinders - 5 in each of the four alga colors: blue, green, purple and red.

50 wooden larva cubes - 10 in each of the five coral colors: grey, orange, pink, white and yellow.

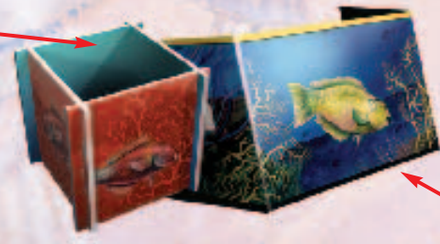
200 polyp tiles - 40 polyp tiles in each of the five coral colors: grey, orange, pink, white and yellow.



10 coral tiles. Each tile is unique and displays two of the five coral colors and two of the four alga colors.

A small starfish identifies which side of the tile is placed face up at the beginning of the game

4 parrotfish. There are four (self assembly containers) representing the parrotfish. Each container displays a parrotfish in one of the four player colors.



4 coral reef boards, each depicting a different rock onto which a coral reef is beginning to form.
Sandy areas in deeper water where the coral polyps will not grow.

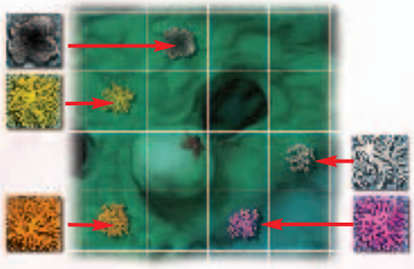
The lighter colored "extra growth" space marked with a starfish, into which corals will automatically expand.
Small polyps showing the places where that particular type of coral will start to grow at the beginning of the game.


A coral reef board

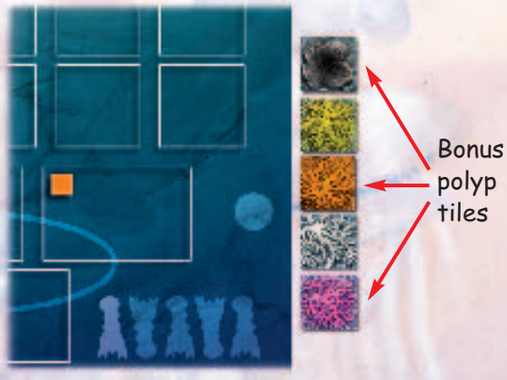
4 player screens. There are four screens, one in each of the four player colors.
4 turn action cards. There are also four turn action cards, one in each of the four player colors, which summarize the actions which are available to a player each turn. (See page 4 for illustration.)
1 cloth bag in which to place the polyp tiles.
1 rulebook.

Set up

At random select a number of **coral reef boards** equal to the number of players. The boards are not owned by any individual player. They are all placed in the center of the playing area and are each available for use by all of the players.
On each rock there are five spaces that indicate where the first corals will begin to grow. Place one **polyp tile** on each of these spaces. The polyp tile should be the same type of coral as the type of coral indicated on the board.

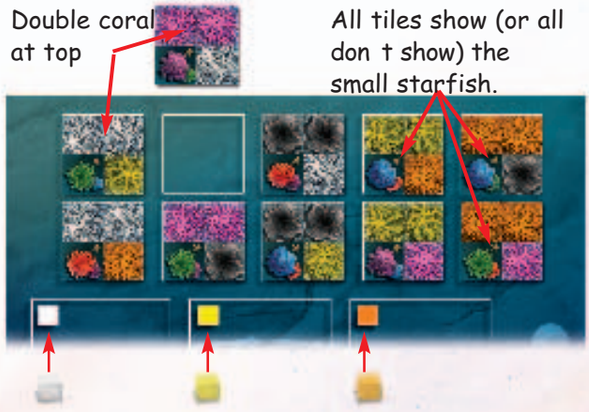


Place the **open-sea board** onto the playing surface. Place five 'bonus' **polyp tiles**, one of each color, at the side of the open-sea board. During the game replenish these polyp tiles as required. These polyp tiles are used as the bonus tiles when filling the light colored 'extra-growth' space. Place the remaining polyp tiles in the cloth bag provided. Next, also place the **alga cylinders** and the **larva cubes** by the side of the open-sea board.



Take one of the coral ties and flip this onto the playing surface. Examine the tile to see whether it has landed on the side with the small starfish depicted on it or the other side.

If the tile has landed starfish side up the place all of the ten coral tiles onto the ten small spaces on the open-sea board, so that all of the tiles display the small starfish. If the tile has landed so that the starfish is not showing, then place the ten coral tiles so that none of the tiles display the starfish. The tiles should all be placed with the 'double coral' at the top and kept that way up during the game for easy reference.



Place a **larva cube** onto the colored square in each of the five large spaces on the open-sea board so that the color of the larva cube matches the color of the square.
Draw one **polyp tile** from the bag. The color of this tile indicates the first of the five large spaces on the open-sea board to receive polyp tiles. Place the polyp tile back in the bag. Next draw polyp tiles from the bag and place these as follows:

3 polyp tiles on the space indicated by the color of the polyp tile previously drawn.
3 polyp tiles on the next space clockwise.
3 polyp tiles on the next space clockwise.
2 polyp tiles on the next space clockwise.
1 polyp tile on the next space clockwise.

Diagram: the starting position after a white tile is drawn from the bag.
The player who most recently went swimming now chooses the **start player**.

Set up (continued)

Each player now takes:
One **screen**, four **shrimps** and one **turn action card** in the same color. The shrimps are placed behind the player's screen.
In clockwise order, players draw the following number of **polyp tiles** (depending on the number of players) unseen from cloth bag and place them behind their screen:

Number of players	2	3	4
Start player	6	6	6
Second player	9	7	7
Third player	-	9	8
Fourth player	-	-	9

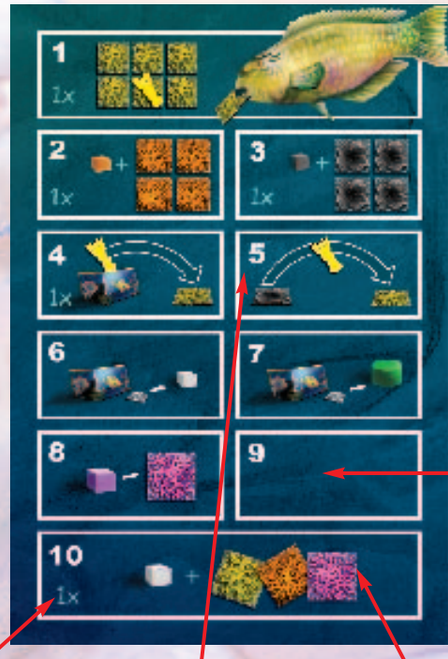
Note: *The advantage of playing first is that that player has first choice of where to place their polyp tiles and is more likely to be able to obtain a free polyp tile by placing a polyp tile next to an extra growth space. Subsequent players get the immediate advantage of more polyp tiles. At some time during the game all players are likely to choose action 9 (see the 'Turn actions section below) on their turn and simply obtain more tiles (in action 10). There is likely to be less need to do this if you are the third or fourth player as you start with more polyp tiles. As a result, by the end of the game, all players are likely to have had a similar number of turns laying tiles, even if the start player ends the game - as the start player is likely to have passed - by choosing action 9 - more often than the other players.*

Each player now selects one of their polyp tiles from behind their screen and places it secretly into their parrotfish. This will provide nourishment for the parrotfish until it can be fed some more polyps later in the game (and, more importantly, it will prevent players from being able to calculate their opponent's scores during the game!)
Finally, each player then chooses two larva cubes after they have looked at their polyp tiles. The color of the cubes taken are shown to the other players and then placed behind the player's screen.
You are now ready to begin the game!

Turn actions

On their turn a player may do any of the following:

1. Eat one coral and a shrimp with their parrotfish.
2. Play a larva cube and lay some polyp tiles.
4. Introduce a shrimp.
6. Exchange a consumed polyp tile for a larva cube of the same color.
8. Exchange a larva cube for a polyp tile of the same color.
10. Collect a larva cube and polyp tiles.



Action 1, if undertaken, must be performed first.

3. Play a second larva cube and lay some more polyp tiles.
5. Move or remove a shrimp.
7. Acquire and play an alga cylinder.
9. Do none of the above.

Actions 1, 2, 3, 4 and 10 can only be performed once during a player s turn.

Apart from action 5, each action must be completed before another action is started. Action 5 - moving a shrimp, can be performed at any time between actions 1 and 9, even in the middle of another action.

Actions 2 to 8, if chosen, are performed in between actions 1 and 10 in any order.

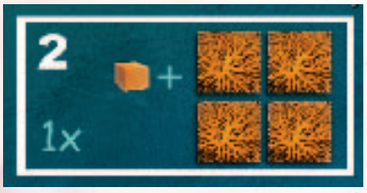
Action 10 is the last action and no other actions can be undertaken once a player has undertaken this action.

Turn actions explained

Action 1: Eat one coral and a shrimp with the parrotfish.

Before all other actions, your parrotfish may eat one coral together with the shrimp guarding it. *(See 'Parrotfish' on page 11 for details.)*

Action 2: Play a larva cube and polyp tiles.



A player may play one larva cube of any color. After showing the cube to the other players, add the used larva cube to the pile of larva cubes by the side of the open-sea board.
A player may then play up to four polyp tiles from behind their screen of the same color as the larva cube they have just played. In addition they may play any number of the same color of (consumed) polyp tiles from in front of their screen. *(See 'consumed polyps' on page 9 for details.)*

Action 3: Play a second larva cube and some more polyp tiles.

A player may play a second larva cube of any color (including the color already played in action 2). Add the used larva cube to the pile of larva cubes by the side of the open-sea board.
A player may then play up to four polyp tiles from behind their screen of the same color as the second larva cube they have just played. In addition they may play any number of the same color of polyp tiles from in front of their screen.

Action 4: Introduce a new shrimp.

A player may introduce one new shrimp from behind their screen onto any coral that does not already have a shrimp on it. At the beginning of the game a player will normally introduce a new shrimp when they start to grow a new coral.
Hint. In the first few turns of the game check to see if there are any corals remaining that do not already house a shrimp. If there are, consider placing a shrimp on the coral to claim and protect it, even if you do not play any new polyp tiles. You can always abandon the coral later if you do not need it.

Action 5: Move shrimps.

A player may move a shrimp which is already on a polyp tile to:

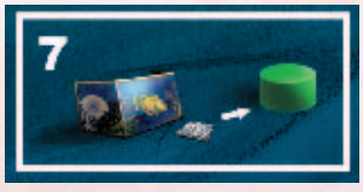
1. a different polyp on the same coral, or
2. a polyp tile on a different coral, or
3. a bare rock space, or
4. behind their screen (and off the board).

A shrimp can be moved at any time between actions 1 and 9, even in the middle of another action.
A shrimp must be moved onto a polyp tile or placed back behind the player's screen at the end of the player's turn. The shrimp cannot remain on a bare rock space.

Action 6: Exchange a consumed polyp tile for a larva cube of the same color.

Exchange one consumed polyp for one larva cube of the same color. The larva cube is placed behind the player s screen. The polyp tile is placed in the bag. *(See 'Consumed polyps' on page 9 for details.)*

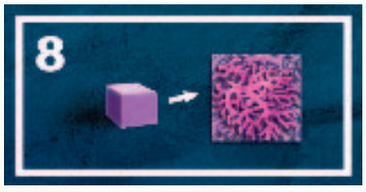
Action 7: Acquire and play an alga cylinder.



Exchange one consumed polyp tile for one alga cylinder of any color. The alga cylinder must be played immediately upon it being acquired.
If a player has placed a shrimp onto the open-sea board *(see 'Parrotfish on page 11 for details)* then the alga cylinder may be placed onto a coral tile or onto the alga cylinder space on the open-sea board. Only one alga cylinder may be played onto a coral tile per turn.
If a player has not yet placed a shrimp onto the open-sea board then the alga cylinder must be played onto the alga cylinder space on the open-sea board. Any alga cylinder already on this space is removed. Any number of alga cylinders may be played onto the alga cylinder space during one turn. *(See section 'Coral tiles and alga cylinders' on page 10 for details.)*

Turn actions explained (continued)

Action 8: Exchange a larva cube for a polyp tile of the same color.

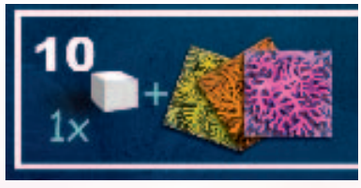


Exchange a larva cube for a polyp tile of the same color. Place the larva cube with the other larva cubes by the side of the open-sea board. Take from the bag of polyp tiles one polyp tile of the matching color (or take the appropriate polyp tile from the five 'bonus' polyp tiles at the side of the open sea board in order to save time and then replace the bonus polyp tile later). The polyp tile is placed behind the player s screen.

'Action' 9: Do none of the above.

A player may choose to do none of the above.

Action 10: Collect a larva cube and polyp tiles.



Finally, after the player has completed all the actions they wish to and are permitted to perform, they collect one of the larva cubes from the open-sea board and any accompanying polyp tiles which are on the same space. The player then replaces the polyp tiles and the larva cube they have just taken as follows:

1. The larva cube is replaced with another larva cube of the same color that has just been taken.
2. For each of the five differently colored larva cubes on the open-sea board that is accompanied by fewer than three polyp tiles, add one polyp tile to the space containing that larva cube.

As an alternative to the player whose turn it is replacing the polyp tiles and larva cube each turn, you may find it easier to nominate the person sitting closest to the open-sea board to replace them after every turn.

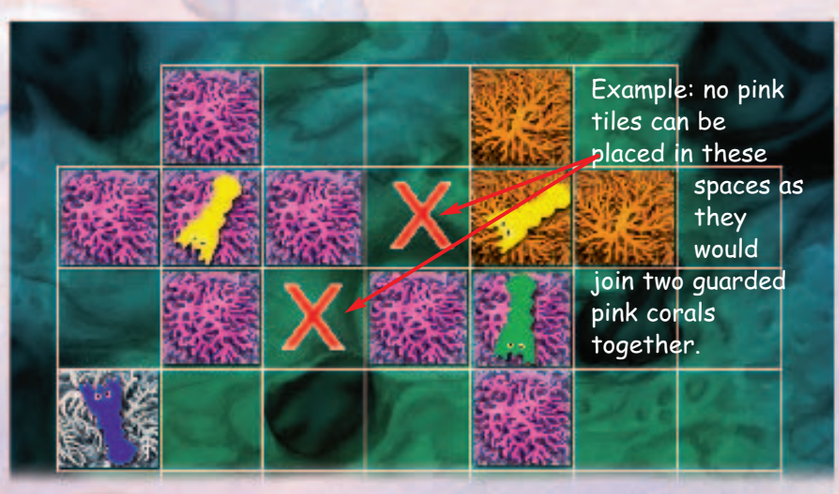
The replacement polyp tiles are taken at random from the bag. If there are fewer than three polyp tiles or no larva cubes remaining, then see the 'end of game' section on page 12.

Play then passes to the next player in clockwise order. The game consists of one continuous round.

Placing polyp tiles

Polyp tiles may be placed on any of the empty rock spaces where there is no polyp tile or shrimp *(see following note)* in order to start a new coral or expand an existing coral. The one exception *(see diagram right)* is that a polyp cannot be placed in a space that would connect two corals of the same color if both of those corals contain a shrimp (as the shrimps guard against this type of action).

Note: *It is only a player's own shrimp that can be on a bare rock during that player's turn as a shrimp must always end a player's turn on a coral or behind a player's screen. If a player's creature is blocking the space where the player wants to place a polyp tile, then the player can simply move the shrimp, which they can do any time under action 5.*



Polyp tiles can only expand a coral of the same color. A coral is expanded by placing a polyp tile orthogonally (horizontally or vertically) next to an existing polyp tile. Polyps are not connected if they are only touching diagonally.

All the polyp tiles played as part of the same action need not form part of the same coral. It is permissible for a polyp tile to be played so as to add to a coral that is protected by another player's shrimp. You may wish to do this for example in order to create a consumed polyp tile. (See 'consumed polyps' on page 9.)

Placing polyp tiles (continued)

Each rock contains a light colored "extra growth" space marked with a starfish. Every time a polyp tile is placed orthogonally next to an empty free growth space, the coral will automatically and immediately (before any other tiles are placed) grow into the free growth space (the extra growth is not optional). Place a polyp tile of the correct color taken from the side of the open-sea board onto the extra growth space.

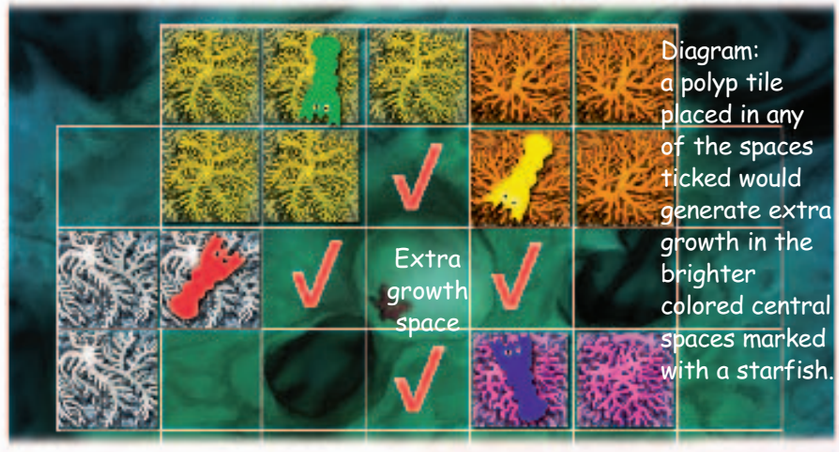


Diagram: a polyp tile placed in any of the spaces ticked would generate extra growth in the brighter colored central spaces marked with a starfish.

The exception that a polyp tile cannot be placed in a space that would connect two corals of the same color if both of the corals contain a shrimp still applies and in these circumstances there is no extra growth. (In the unlikely event that the correct color of polyp tile is not available, then no extra polyp tile is laid). If the extra growth space becomes vacant again, then it will generate more extra growth next time a polyp tile is placed next to it.

An extra polyp tile received from a free growth space does not count toward the limit of four tiles that can be placed for each larva cube that is played.
***Hint:** In the first round it is possible for each player to play two larva cubes and consequently two types of polyp tiles. However playing a second type of polyp tile in the first round is not recommended as it is only possible to introduce one shrimp per turn. This means that one of the two corals the player has grown could not be protected and would therefore probably be claimed by another player using their shrimp.*

***Hint:** If you start to grow a coral two spaces away from another coral of the same color, these corals cannot be joined if there are shrimps protecting both corals. Therefore both corals are protected from attack from the direction of that other coral.*

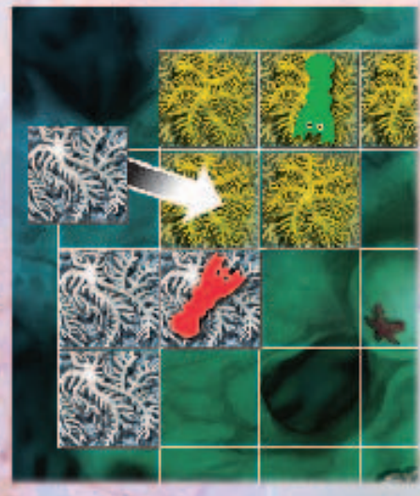
***Hint:** It is easier to protect a coral that is at the edge of a rock, as they are not so readily attacked.*
***Hint:** A player growing three to four different types of coral is more likely to get the types of polyp tile they require than a player trying to specialise in one or two types of coral only.*

As previously stated, with the exception of action 5, a player must complete one action before starting another action. For the avoidance of doubt, a player who performs both actions 2 and 3 may not place any more tiles of the coral color used in action 2 once they have played polyps of a second color used in action 3.

Attacking other corals

In certain circumstances a polyp from one coral may devour a polyp from an existing coral of a different color. An attacking coral must always be at least two polyps large. A coral attacks by adding a third or additional polyp onto an adjacent space occupied by the unprotected target polyp (and thereby consuming that target polyp). The attacking polyp tile replaces the consumed polyp tile from the attacked coral.

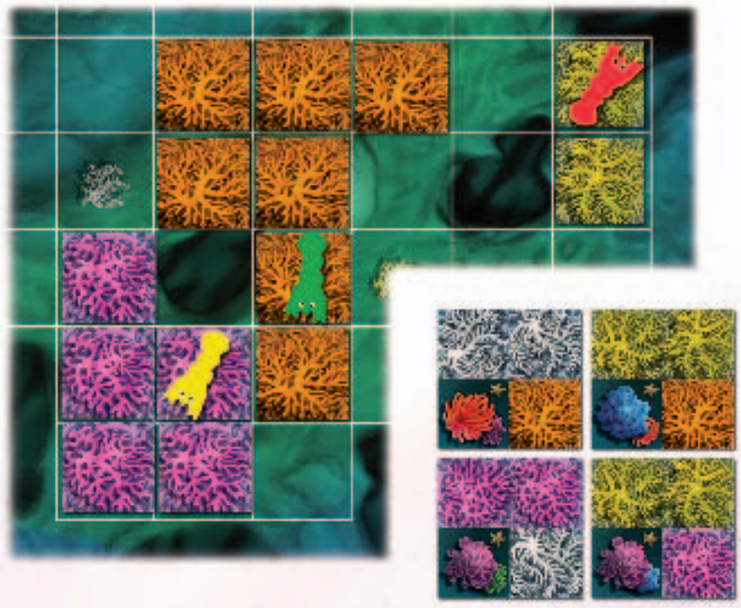
The consumed polyp is removed from the board and placed in front of the attacking player's screen. This is the key way for players to increase their movement options.



***Example:** this coral tile shows that the white coral is stronger than the yellow coral (irrespective of the size of the corals), because the white coral is at the top of the coral tile and the yellow coral is at the bottom of the coral tile. White corals that are at least two polyps large can therefore attack yellow corals (see 'Coral tiles and alga cylinders on page 10). In this attack the white polyp tile replaces the yellow polyp tile and the yellow polyp tile is removed and placed in front of the attacking player s screen.*

Attacking other corals (continued)

Example: *It is red's turn to play. Behind their screen red has three yellow polyp tiles, four white polyp tiles, a yellow larva cube and a white larva cube. In front of their screen red has a white (consumed) polyp tile.*



As indicated by the coral tiles (the relevant coral tiles are shown inset), white and yellow corals are currently stronger than orange corals, pink corals are currently stronger than white corals and yellow corals are currently stronger than pink corals.

Before red moves, the position is as shown in the top diagram.

During red s turn, red undertakes the actions detailed below. The results of these actions are shown in the bottom diagram.

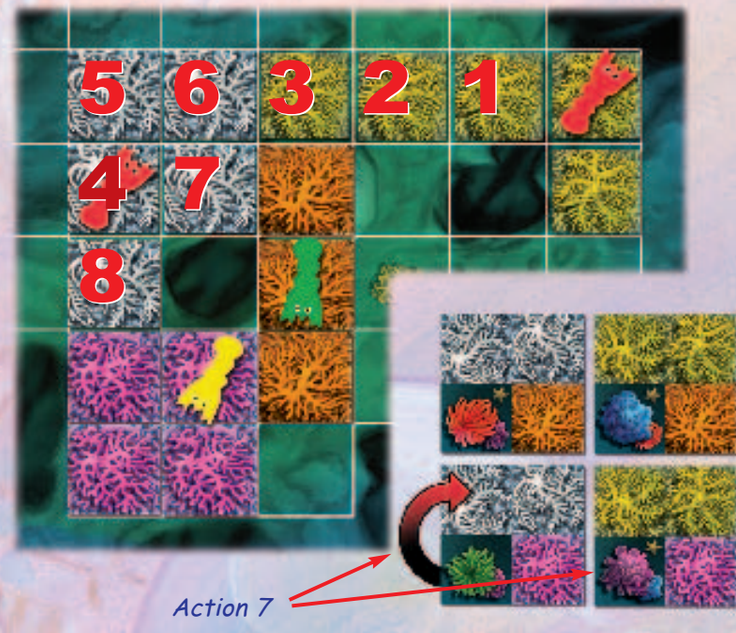
Under action 2, red plays the yellow larva cube and the three yellow polyp tiles. The first polyp tile is placed on the space marked one. Red's yellow coral is three polyp tiles large, so it is more than big enough to attack the orange coral. Yellow corals are stronger than orange corals so yellow corals can consume orange polyp tiles. Red plays their other two yellow polyp tiles (onto the spaces marked 2 and 3, and consumes the two orange polyp tiles which were previously occupying these spaces).

Under action 7, red now exchanges one of the two orange polyp tiles which their yellow coral has just consumed (and placed in front of their screen) for a purple alga cylinder. Red places the purple alga cylinder on top of the yellow and pink (bottom right) coral tile. As a result, the other coral tiles that also display a purple alga (and are not already covered by an alga cylinder) are turned over. In this example the pink and white coral tile is therefore turned over. White corals are now stronger than pink corals.

Under action 3, red now plays the white larva cube, the four white polyp tiles from behind the screen and the one white consumed polyp tile (which red's corals had consumed in an earlier turn) from in front of the screen. The first two polyp tiles are played into positions 4 and 5 to create a new coral. As this coral is two polyps large it can attack other corals. Red then plays polyp tiles into positions 6 and 7 where it consumes two orange polyp tiles and into position 8 where it consumes a pink polyp tile.

Under action 4, red now places one of their shrimps onto position 4 in order to protect the white coral.
At the end of their turn red will then choose one to three new polyp tiles and a larva cube

under action 10. Red will also have three (of the four) orange and one pink polyp tiles in front of their screen, which were consumed by red's corals during this turn.



Attacking other corals (continued)

Hint: *If a player accumulates several polyp tiles of a color they do not want, it may be possible to play these polyp tiles in action 2 and then consume them in action 3. In this way the player will accumulate some valuable consumed polyps.*

Hint: *Consumed polyp tiles can be played without limit, in addition to up to four polyp tiles of the same color from behind a player's screen. Therefore in action 2 a player should consider whether it is possible to consume one of their own corals in its entirety. It may then be possible to immediately play the newly consumed corals in action 3 elsewhere on the boards, converting one of the consumed polyps into a larva cube if required. In this way it is possible for quite large corals to move across the boards.*

A coral will never attack another coral of its own type. It can however merge with a coral of its own type, provided that there is not a shrimp on both of the two corals.

As a result of a polyp being devoured, a coral may be split into two or three separate corals. These separate parts continue to survive as separate corals.

Consumed polyps

As mentioned, when a polyp is devoured by another coral the consumed polyp tile is placed in front of the screen of the player who initiated the attack.

Each consumed polyp (is a valuable source of nutrient and) has the following uses:

(1) it can be played as a new polyp tile in addition to the polyp tiles held behind a player's screen (in actions 2 and 3). There is no limit to the number of consumed polyp tiles that can be played in this way.

(2) it can be exchanged for one larva cube of the same color (action 6).

(3) it can be exchanged for one alga cylinder of any color (action 7).

Hint: *Remember it is possible to add polyps to corals belonging to other players. It is therefore possible to use another player's coral to attack another player's coral (or even your own coral). This is often a good way to obtain a consumed polyp tile.*

Shrimps

Shrimps protect the polyp tile they are on from attack, plus any other polyp tile that is orthogonally adjacent to that polyp tile and which is part of the same coral. Shrimps will not protect an adjacent polyp that is part of a different coral.

The arrows in the diagram show those polyps that are protected by the shrimps.

Shrimps may be moved from a polyp tile onto a bare rock during a player's turn, however a shrimp must be placed onto a polyp tile before the end of that player's turn or it must be returned to behind the player's screen.

Two shrimps can never be on the same coral.

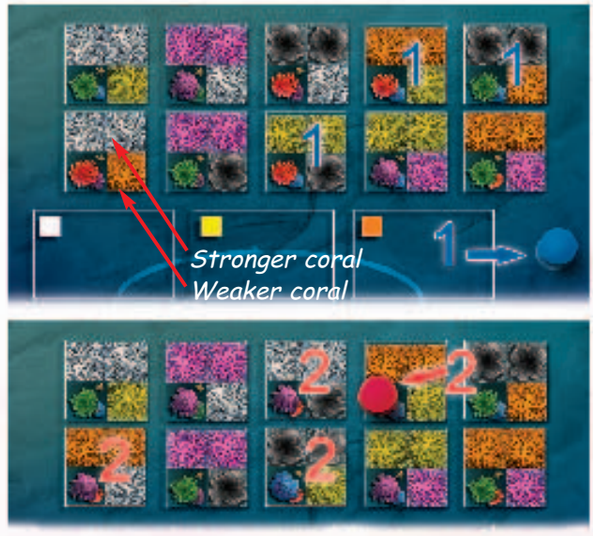
Players may not at any time have more than two of their own shrimps on one rock.

Shrimps which have not yet been played are kept behind a player's screen. A player is not obliged to state how many shrimps they still have behind their screen if asked.

Coral tiles and alga cylinders

Each coral tile is unique and displays two of the five corals. The duplicated coral at the top of the coral tile denotes which of the two types of coral is the stronger. The single polyp at the bottom right of the coral tile can be consumed by the stronger coral. Corals of the stronger type can always defeat corals of the weaker type, irrespective of the size of the target coral.

Each coral tiles also shows two of the four types of algae: blue, green, purple or red, in the bottom left of the tile and may also show a small starfish. (See 'Coral tiles' under set-up on page 3.) One color of alga is shown larger in the foreground and the second color behind and smaller.



Example: The top illustration shows the effects on the coral tiles (as shown in the 'Set up on page 3) after a blue alga cylinder is played. The bottom illustration shows the subsequent effect of a red alga cylinder being played on the tile indicated. The numbers identify the coral tiles affected.

When a player exchanges a consumed polyp tile for an alga cylinder in action 7, they must then immediately play that alga cylinder. The options available for playing the alga cylinder depend on whether or not that player has already played a shrimp onto the open-sea board as a result of having eaten their first coral (see 'Parrotfish', page 11).

If a player has played a shrimp onto the open-sea board they may either:

1. place the alga cylinder onto the alga cylinder space on the open-sea board, or
2. place the alga cylinder on the top of one of the coral tiles.

If a player has not yet played a shrimp onto the open-sea board then they must place the alga cylinder onto the alga cylinder space on the open-sea board. A player may exchange more than one consumed polyp tile for an alga cylinder in one turn, but they only place one of the alga cylinders onto the coral tiles per turn. Any other alga cylinders must be placed onto the alga cylinder space on the open-sea board.

If an alga cylinder is placed onto the alga cylinder space on the open-sea board, all of the coral tiles which display a large alga of the same color as the alga cylinder just played and which do not already support an alga cylinder are flipped over. Any alga cylinder, which was already on the alga cylinder space, is removed and placed back with the other unused alga cylinders, where it is available for reuse later in the game. As mentioned above, there is no limit to the number of times a player may choose this option during their turn.

If an alga cylinder is placed on the top of one of the coral tiles the alga cylinder selected must be the same color as the large alga displayed on the bottom left of the coral tile. The coral tile selected must not already contain an alga cylinder. All of the remaining coral tiles which display the same color of large alga as the alga cylinder just played and which do not already support an alga cylinder are then flipped over. As mentioned above, this option may only be chosen once per turn.

On the reverse side of the coral tile, both the two coral colors and the two alga colors are reversed. The algae have 'energized' the previously weaker coral giving it additional strength. The smaller alga shown on the coral tile is for information purposes only. This information enables players to know which color alga must be played in order to turn the coral tile back again once the tile has been flipped over.

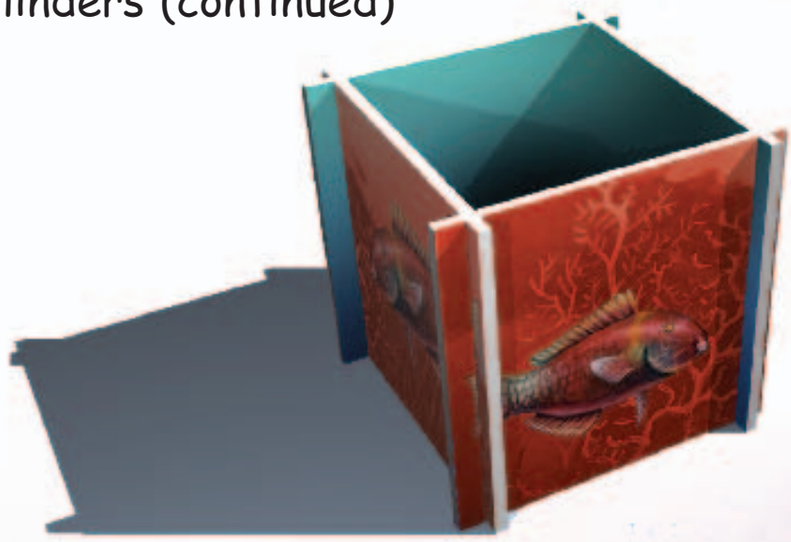
Hint: Placing the alga cylinders onto the coral tiles is a key part of winning the game. An alga cylinder locks the coral tile into that position for the remainder of the game. Each time a type of coral features on the top of the coral tile at the end of the game, the value of that coral is increased. It is therefore advantageous for a player to fix the coral tiles so that they increase the value of the polyp tiles that their own parrotfish is consuming.

As mentioned, when a consumed polyp tile is exchanged for an alga cylinder, the alga cylinder must be played immediately. If it is not possible to play a particular color of alga cylinder immediately then that color of alga cylinder cannot be chosen.

A player may not place an alga cylinder on the last uncovered

Coral tiles and alga cylinders (continued)

coral tile, thereby ending the game (see 'End of the game' on page 11), if that player's parrotfish has not consumed at least two polyp tiles (including the polyp tile eaten at the beginning of the game in the set up phase).



Parrotfish

Once a coral is large enough - at least five polyp tiles - it becomes big enough for the parrotfish to eat. In action 1, at the beginning of a player's turn, a player's parrotfish may eat one coral which is at least five polyps large and which is protected by that player's shrimp. A parrotfish will not eat a coral which is protected by another player's shrimp or which is not protected.

When a parrotfish eats a coral, the first four polyp tiles from the coral are placed back into the polyp tile bag. Shake the bag so that these tiles are mixed in with the other tiles in the bag. The additional tile(s) are placed into the player's parrotfish. The polyp tiles in a player's parrotfish will give rise to that player's score at the end of the game. (See also the rules for the 'End of the game below, when five polyp tiles are placed back into the bag, not four.)

If the coral is the first coral to be eaten by the player's parrotfish, then the shrimp which is guarding the coral and which is also consumed is placed on one of the shrimp spaces on the open-sea board. If the player has already eaten a coral and has therefore already placed a shrimp on the open-sea board, then the shrimp just eaten is placed inside the parrotfish along with the polyp tiles. Placing a shrimp on the open-sea board identifies that that player is now able to place alga cylinders onto the coral tiles.

Hint: *Be careful to monitor how many shrimps your opponents' parrotfish have eaten in order that you can anticipate when the game may end. For example, if one player's parrotfish has already eaten two shrimps, then the game could be over in just another two turns.*

If a player has already performed an action during that turn, then their parrotfish cannot subsequently eat a coral during that same turn. The player must wait until their next turn before they can eat the coral.

A player is allowed to look into his own parrotfish at any time to see the type of polyp tiles that the parrotfish has already consumed. Players are not allowed to look into other players' parrotfish.

End of the game

The game ends immediately when one of the following events occur:

1. When all the coral tiles are covered by alga cylinders.
2. When all four of one player's shrimps are eaten by their parrotfish.
3. If there is nowhere left to play a polyp tile (highly unlikely).
4. If there are insufficient polyp tiles or there is no larva cube remaining to replace those taken by a player at the end of their turn (also highly unlikely).

Note *that in the unlikely event that the polyp tiles in the bag run out, place the five 'bonus' polyp tiles back into the bag for use in the normal course of play.*

If the game ends as a result of events 1 or 2 (which will nearly always be the case) all of the players except the player ending the game, may have one additional turn each. During this additional turn the only action a player can perform is to consume one existing coral with their parrotfish. However on this occasion players must place five polyp tiles into the polyp tile bag instead of the usual four.

Note: *Although the start player may appear to have an advantage as there is no requirement that all players have the same number of turns, this is compensated for by the other players starting the game with additional polyp tiles, which reduces the necessity for those players to have turns where they do nothing other than pick up polyp tiles in action 10.*

Scoring

At the end of the game, score the contents of each player's parrotfish.

Each polyp tile consumed scores one point plus one point for each coral tile which shows that color of coral duplicated at the top of the coral tile. Each polyp will therefore be worth from '1' to '5' points each.

Note that the sum of the value of the five individual types of coral in the first number column will always add up to 15. (10 because there are ten coral tiles plus 5 because they all have a starting value of 1).

If two or more players have the same score, then the positions are determined by comparing the following in order until one player is found to have more than the other(s):

1. *Number of consumed polyps still available in front of the player's screen.*
2. *Number of unplayed larva cubes.*
3. *Number of unplayed polyp tiles.*
4. *Number of polyp tiles on the boards forming part of a coral protected by that player s shrimp.*

In the unlikely event that players are still equal then the relevant positions are tied.

Example of scoring

	Value	Purple	Green	Red	Yellow
Grey	2	(2) 4	(0) 0	(0) 0	(3) 6
Pink	3	(0) 0	(1) 3	(0) 0	(3) 9
Orange	2	(0) 0	(0) 0	(4) 8	(0) 0
White	3	(3) 9	(0) 0	(4) 12	(0) 0
Yellow	5	(1) 5	(4) 20	(0) 0	(1) 5
Totals	15	18	23	20	20

The number of tiles eaten by each parrotfish is shown in the brackets.

Advanced game

Once you are familiar with Reef Encounter you may prefer a longer more tactical game where there is more opportunity to exploit some of the tactics hinted at in the rulebook.
If so, try the game with the following changes:

1. *No bonus tiles are available when placing polyp tiles next to the light colored squares marked with a starfish.*
2. *The number of polyp tiles placed in the bag when a coral is eaten is increased from 4 to 5 (and at the end of the game from 5 to 6).*

Acknowledgements

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Keep watch for Reef Encounters of the second kind!