

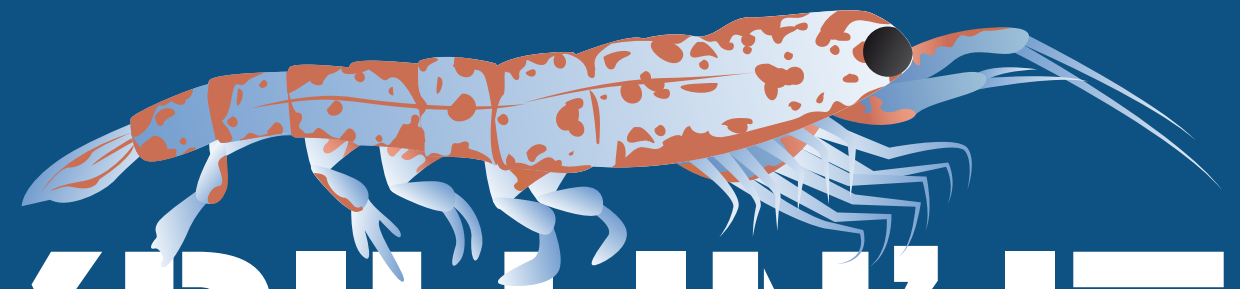
Antarctic krill are the powerhouse of the Southern Ocean.

Penguins, seals and whales depend on eating krill, and some countries (not Australia) fish for krill.

The **Australian Antarctic Division** has the world's only aquarium for live krill research. We use our aquarium and icebreaker *RSV Nuyina* to see what will happen to the food chain of the Southern Ocean with global warming or more fishing.

Our krill research is important to inform climate change and marine protection policies in Australia and around the world.

KRILLIN' IT was developed by Australian Antarctic Division's No.1 krill seeker, biologist, Rob King



KRILLIN' IT

THE MOST KRILLING GAME YOU'LL EVER PLAY!





KRILLIN' IT



THE MOST KRILLING GAME YOU'LL EVER PLAY!

You are an **Antarctic krill** and this is the adventure of your lifetime!

Begin the game by placing your token on square 01. You have just been spawned by your mother along with her other 3000 eggs into the surface waters of the icy Southern Ocean. Roll the dice and move the number of squares shown on the dice in the direction of the increasing numbers on the board.

Your journey has begun.

You and your fellow eggs begin to sink down into the deep dark ocean. Eight days later, a kilometre deep below the surface, you hatch! Then you begin to swim back up to the surface, changing as you go. Three weeks after hatching you **finally reach the surface at square 18** and you can begin feeding on the floating microscopic plants, the **phytoplankton**. You are getting better at swimming as your legs and tail continue to develop and grow. While you can swim up and down amongst the sea ice, you can't swim against sideways currents. You're not that strong yet, so you go where the water goes - **you are plankton**.

For the next six months you and your fellow krill larvae swarm closely together, tucked in with the sea ice to avoid predators during the daylight hours. As you grow, your shape keeps changing through eight more larval stages. **You then become a juvenile krill at square 27.** For the first time you can swim around like a fully grown krill, no longer just plankton drifting with the ocean currents.

You continue to grow and by the end of the first year you are an **adult krill**. During this time you become a champion swimmer. Every **dawn** you swim down into the dark ocean to avoid predators that are looking for you in the daylight above. Then at every **dusk** you swim back up to feed on the microscopic **phytoplankton** in the surface waters. You will perform this down-up migration every day for the rest of your life.

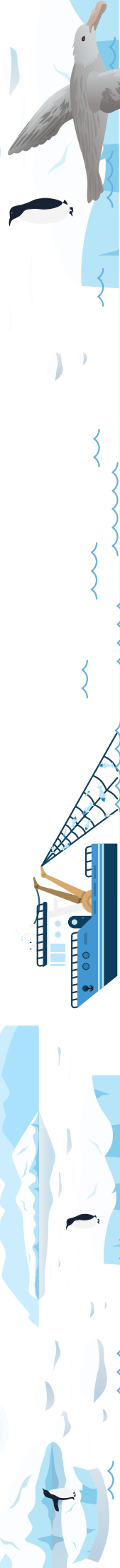
After another year of growing you'll be ready to swim out to sea and spawn your own eggs into the surface waters. At **square 120**, your two year life cycle will be complete. Life is not over though - **krill can live for seven or more years**, so you have many more spawns to come.

But life is not a smooth ride. It will take a big effort to reach **square 120** and **win the game**. Many of the spawn you hatched with will not make it. Some of you will get lucky and encounter things that will help you on your journey (on the board these are **chains** you can climb up). If you land on an **orange number** you can go **up that chain**.

Mind how you go though, there's a lot out there that **wants to eat you** and lots can go **wrong**.

If you land on an aqua number, you must **slide into and down that tube**. But keep going, you're still with us! Some of your spawn mates have disappeared, but if you keep going you can make it to the spawning grounds. You just need to **get to square 120** (you don't need exactly the right number on the dice).

GOOD LUCK KRILL, YOU ARE KRILLIN' IT!



FINISH 120 ***START*** 01

SPAWNING GROUNDS EATEN BY A BLUE WHALE EATEN BY A JELLYFISH METANAUPLIUS NAUPLIUS 1 NAUPLIUS 2 PERFECT CONDITIONS FOR EARLY HATCHING EGG HATCH

02 03 04 05 06 07 08 09

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

EATEN BY A PETREL EATEN BY A LEOPARD SEAL SCHOOL WHALES PREDATORS SCHOOLS SINKS ENERGY EATEN BY A STARFISH MASSES OF ZOOPLANKTON TO EAT UPWELLING NUTRIENTS FEEDS BLOOMS

CAUGHT BY A FISHING BOAT FURCILIA 1 (SEA ICE DOES NOT FORM) CALYPTOPS 1 CALYPTOPS 2 CALYPTOPS 3 FURCILIA 2 FURCILIA 3 FURCILIA 4 FURCILIA 5 FURCILIA 6 JUVENILE