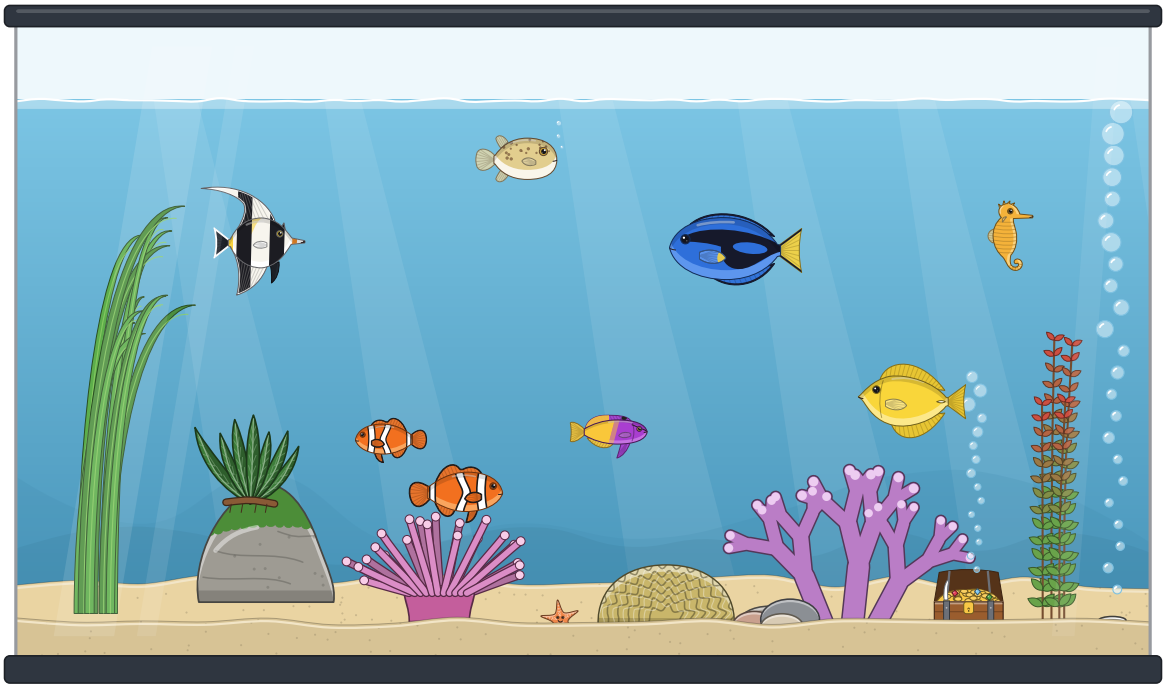
tikzfins

Aquarium fish and aquascapes with Ti*k*Z





Vernon Merrick Fanning

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Contents

1 Introduction **2**
- 1.1 Loading the package . . . 2

2 Basic use **2**

3 The fish **3**
- 3.1 Reef fish . . . 3
- 3.2 Freshwater fish . . . 4

4 Invertebrates **4**

5 Faces **6**
- 5.1 Eyes . . . 6
- 5.2 Mouths . . . 6
- 5.3 Jaws . . . 6
- 5.4 Predator and prey . . . 7

6 Extras **7**
- 6.1 Eaten to the bone . . . 7
- 6.2 Legs . . . 7
- 6.3 On the run . . . 8
- 6.4 Hooked, bubbles and speech . . . 8
- 6.5 Hats, snorkels and moustaches . . . 8
- 6.6 Belly up . . . 8
- 6.7 Schools . . . 8

7 Building an aquascape **9**
- 7.1 The aquarium . . . 9
- 7.2 The fish bowl . . . 10
- 7.3 Rocks and wood . . . 11
- 7.4 Plants . . . 11
- 7.5 Reef . . . 11
- 7.6 Ornaments and bubbles . . . 12
- 7.7 Putting it together . . . 13

8 Colours **13**

9 Key reference **15**

10 Tips **17**

11 Change history **17**

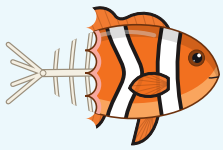
12 Licence and thanks **17**

1 Introduction

tikzfins draws aquarium fish in side profile with Ti*k*Z, together with everything you need to build a tank around them: sand, gravel, aquasoil and pebbles, rocks, driftwood, plants, corals, ornaments and bubbles. There are twenty-two fish, from the clownfish, the blue tang and a blacktip reef shark to the goldfish, the neon tetra and the corydoras of a home aquarium, and their tank mates: snails, starfish, a cleaner shrimp, a hermit crab and a moon jellyfish. They are drawn as flat vector illustrations, with counter-shading, translucent fins and fin rays, and with the markings of the real species, so they look at home in a diagram, a worksheet or a full aquascape.

It would not be a sibling of tikzeats without some nonsense. Any fish can be eaten down to the bone, open an enormous mouth full of teeth, flee in a cold sweat, grow a pair of legs in trainers, get caught on a hook, blow bubbles, talk, wear a hat or a snorkel, and swim in a school.

```
\begin{tikzpicture}
  \clownfish[bones=1]
\end{tikzpicture}
```



tikzfins was inspired by samcarter's tikzducks and tikzlings, Florian Sihler's tikzpingus, and its older sibling tikzeats. All figures are original drawings, made from scratch with Ti*k*Z paths, and the package can be loaded alongside all of these.

Until version 1.0, commands and keys may still change.

1.1 Loading the package

```
\usepackage{tikzfins}
```

tikzfins needs only Ti*k*Z, which it loads for you along with the `calc`, `shapes.misc`, `decorations` and `decorations.pathmorphing` libraries. It works with pdfLaTeX, XeLaTeX and LuaLaTeX, and it has no package options.

2 Basic use

Every fish and every component is a command used inside a `tikzpicture`, with an optional argument of ⟨*key*⟩=⟨*value*⟩ options:

```
\begin{tikzpicture}
  \goldfish
  \betta[at={(4,0)}, facing=left]
\end{tikzpicture}
```

At `scale=1` a fish is about 3 cm long from nose to tail and is centred on its `at` point. Aquarium components and bottom-dwelling invertebrates are different: they *stand* on their `at` point, which is the middle of their base, so that you can put them on the sand.

`at={(`⟨*x*⟩`,`⟨*y*⟩`)}`
: Moves the fish or component. The default is `(0,0)`.

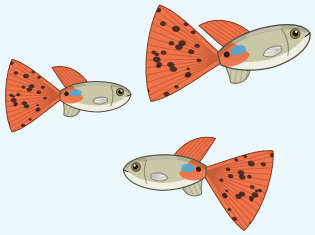
`scale=`⟨***factor***⟩
: Resizes it. Unlike Ti*k*Z's own `scale`, this key also scales line widths, so small fish stay delicate.

`facing=left|right`
: Fish face right by default. `facing=left` mirrors a fish or a component.

`rotate=`⟨***angle***⟩
: Tilts it, for a fish swimming up or down.

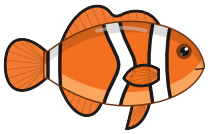
`tail=`⟨*angle*⟩
Swings the tail fin around its base, which makes a still picture look like it is swimming.

```
\begin{tikzpicture}
  \guppy[scale=0.6]
  \guppy[at={(2.2,0.6)}, scale=0.8,
    rotate=15, tail=-20]
  \guppy[at={(1.2,-1)}, facing=left,
    scale=0.7, tail=20]
\end{tikzpicture}
```



3 The fish

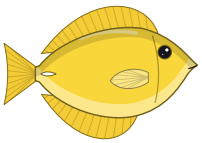
3.1 Reef fish



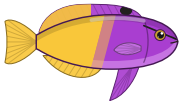
`\clownfish`



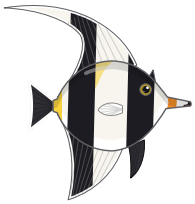
`\bluetang`



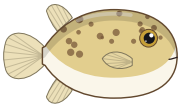
`\yellowtang`



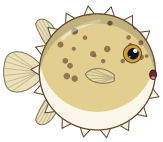
`\royalgramma`



`\moorishidol`



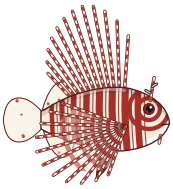
`\pufferfish`



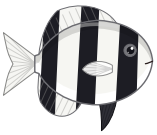
`puffed`



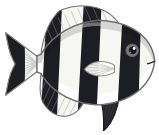
`\seahorse`



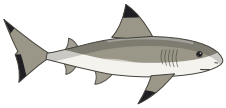
`\lionfish`



`\damselfish`



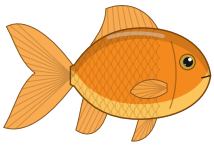
`stripes=4`



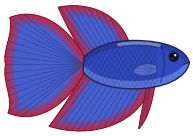
`\shark`

`\pufferfish`
`puffed` blows it up into a spiky ball; a puffed pufferfish opens its mouth unless you choose another one.
`\seahorse`
Stands upright, and has no bones to eat (see section 6.1).
`\damselfish`
A humbug damselfish with three bars; `stripes=4` gives the four-stripe damselfish, whose tail is black too.
`\shark`
A blacktip reef shark. It is bigger than the other fish: about 4.6 long at `scale=1`.

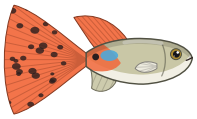
3.2 Freshwater fish



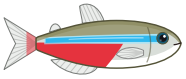
`\goldfish`



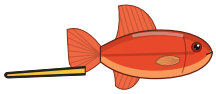
`\betta`



`\guppy`



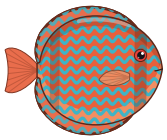
`\neontetra`



`\swordtail`



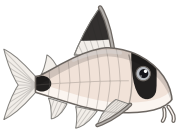
`\angelfish`



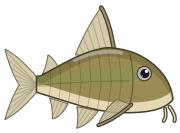
`\discus`



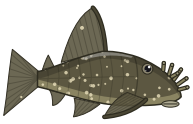
`\tigerbarb`



`\corydoras`



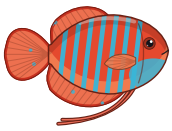
`type=bronze`



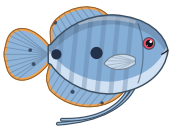
`\pleco`



`\zebradanio`



`\gourami`



`type=blue`

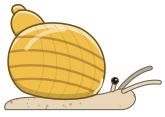
`\corydoras`
: A panda corydoras, with its black mask, dorsal fin and tail spot; `type=bronze` gives a bronze corydoras. Both have barbels and no mouth line unless you choose a `mouth`.

`\pleco`
: A bristlenose pleco, with the bristles on its snout and a sucker mouth underneath.

`\gourami`
: A male dwarf gourami, with its long feeler-like pelvic fins; `type=blue` gives a blue (three-spot) gourami.

4 Invertebrates

The tank mates stand on their `at` point like the aquarium components, except the jellyfish, which floats, centred on it. Otherwise they work just like fish: they take `scale`, `facing`, the colour keys, and all the extras of section 6 except `bones` and `tail`.



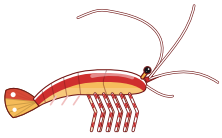
`\snail`



`type=nerite`



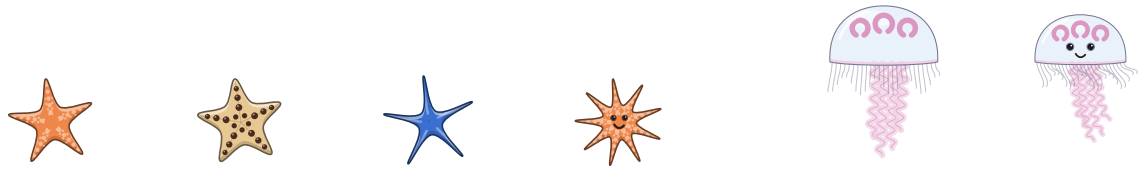
`type=ramshorn`



`\shrimp`



`\hermitcrab`



`\snail`
: A golden mystery snail by default; `type=nerite` gives a zebra nerite and `type=ramshorn` a red ramshorn snail. `body` is the shell, `pattern` its stripes and `accent` the snail itself. Its eye sits at the base of its tentacles, so `eye=googly` is on a stalk.

`\starfish`
: `type=common` (the default), `chocolatechip` or `linckia`, the blue sea star. `arms=`$\langle n \rangle$ sets the number of arms (default 5).

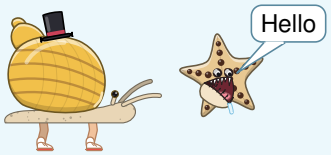
`\shrimp`
: A cleaner shrimp: red back with a white stripe, long white antennae.

`\hermitcrab`
: A hermit crab in a borrowed shell; `body` is the shell and `accent` the crab.

`\jellyfish`
: A moon jellyfish. `sway` bends its arms and tentacles.

Real starfish and jellyfish have no faces, so they have none unless you ask: `face=happy` or `face=sleepy` gives them a pair of eyes and a smile, and `eye` and `mouth` work too.

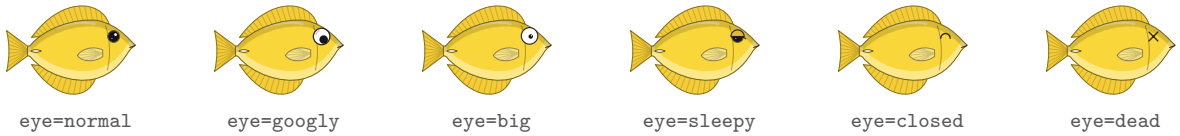
```
\begin{tikzpicture}
  \snail[hat=top, legs]
  \starfish[at={(2.1,0)}, eye=googly,
    mouth=chomp, type=chocolatechip,
    says={Hello}]
\end{tikzpicture}
```

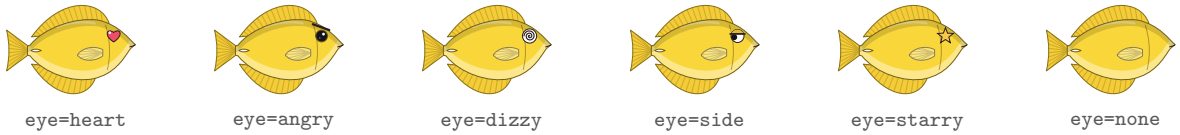


5 Faces

5.1 Eyes

Every fish takes `eye=`⟨*name*⟩. The default is `normal`, a realistic eye whose ring is the fish's `iris` colour.





`eye scale=`⟨*factor*⟩ makes the eye bigger or smaller.

5.2 Mouths

`mouth=`⟨*name*⟩ changes the mouth at the tip of the snout. Two of them are human, which is exactly as unsettling as it sounds. `fangs` keeps the mouth shut but lets two fangs poke out. `chomp` is different from the others: rather than drawing a mouth on the fish, it opens the fish's whole head into a pair of jaws lined with teeth (section 5.3).





5.3 Jaws

With `mouth=chomp` a fish is ready to feed: its head opens into a wedge-shaped gape, hinged behind and below the eye, and teeth line both jaws. The jaws follow the outline of each fish, and the upper jaw always passes below the eye. `gape=`⟨*angle*⟩ sets how wide they open, from about 30 to 120 degrees; the default is 110.



The seahorse and the invertebrates have no jaws to open, so for them `chomp` draws a mouth full of teeth instead.

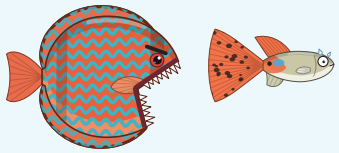
5.4 Predator and prey

`mouth=chomp` pairs nicely with `bones` (section 6.1) and the chase keys of section 6.3:

```
\begin{tikzpicture}
  \goldfish[facing=left, bones=2, eye=big, mouth=open, speed, sweat, scale=0.8]
  \shark[at={(5.6,0.1)}, facing=left, mouth=chomp, eye=angry, scale=0.7]
\end{tikzpicture}
```



```
\begin{tikzpicture}
  \discus[mouth=chomp, eye=angry]
  \guppy[at={(2.4,0.15)}, eye=big,
    sweat, scale=0.6]
\end{tikzpicture}
```



6 Extras

6.1 Eaten to the bone

`bones=`⟨*n*⟩ eats a fish from the tail, from 0 (the default) to 3. A plain `bones` means 1. Every third leaves a row of bite marks and a little more skeleton; `bones=3` leaves only the head. The colour of the bitten edge is the fish's `inside` colour.

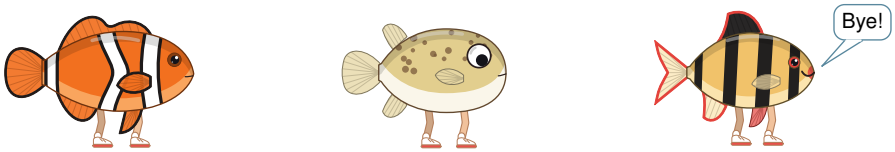


`bones=0` `bones=1` `bones=2` `bones=3`

Bones work on every fish except the `\seahorse`; it and the invertebrates ignore the key with a warning.

6.2 Legs

`legs` gives a fish a pair of human legs with socks and trainers, for the day it decides to leave the water.



`legs` `legs, eye=googly` `legs, says=...`

6.3 On the run

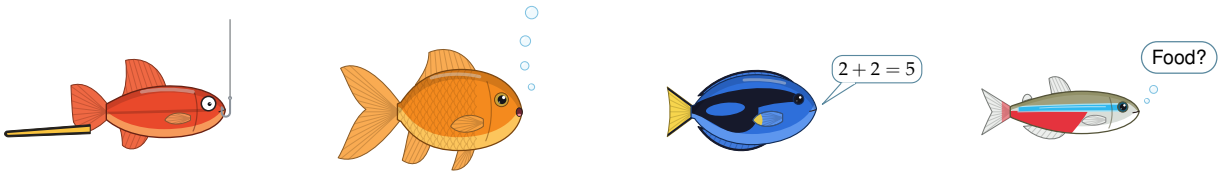
`speed` draws speed lines behind the tail, and `sweat` sends two drops of sweat flying off the head.



`speed` `sweat` `speed, sweat`

6.4 Hooked, bubbles and speech

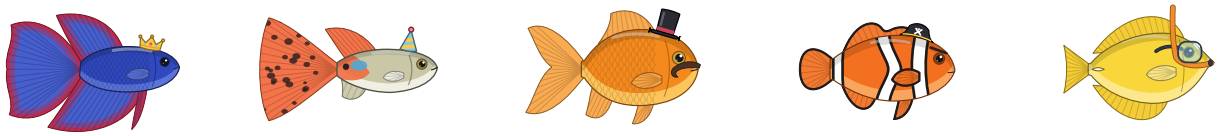
`hooked` hangs the fish from a fishing line; `line length` sets how far up the line goes (the default is 4, which an aquarium cuts off at its frame). `bubbles=`⟨*n*⟩ lets out a trail of bubbles from the mouth (a plain `bubbles` is 3). `says={`⟨*text*⟩`}` and `thinks={`⟨*text*⟩`}` add a speech or thought bubble; the text can contain maths and line breaks.



`hooked` `bubbles=4` `says` `thinks`

6.5 Hats, snorkels and moustaches

`hat=` takes `crown`, `party`, `top`, `pirate` or `none`. `snorkel` gives a mask and snorkel, and `moustache` does what it says.

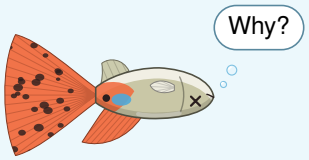


`hat=crown` `hat=party` `hat=top` `hat=pirate` `snorkel`

6.6 Belly up

`belly up` turns a fish upside down. Bubbles and speech stay upright.

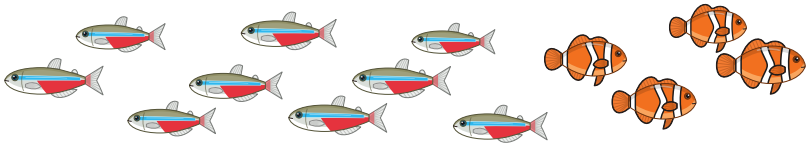
```
\begin{tikzpicture}
  \guppy[belly up, eye=dead,
    thinks={Why?}]
\end{tikzpicture}
```



6.7 Schools

`school=`⟨*n*⟩ draws a whole school: the fish at `at` leads, and the others follow in loose rows, slightly smaller and scattered. `school spread=`⟨*factor*⟩ spaces them out, and `seed` gives a different arrangement. Only the leader keeps its speech bubble, bubbles and hook.

```
\begin{tikzpicture}
  \neontetra[school=9, scale=0.5, facing=left]
  \clownfish[at={(9.5,0.2)}, school=4, scale=0.4, seed=3, school spread=1.2]
\end{tikzpicture}
```

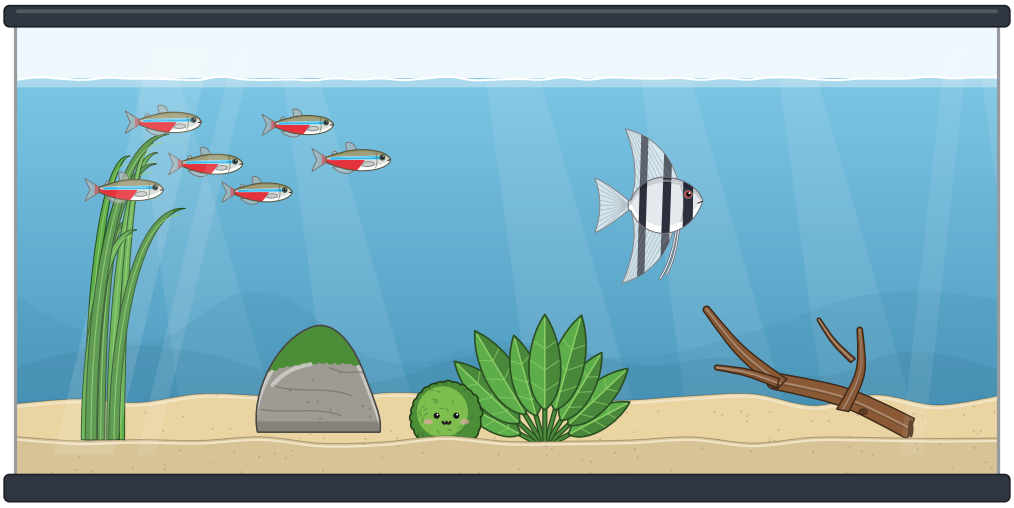


7 Building an aquascape

7.1 The aquarium

The `aquarium` environment draws a tank with water, sand and a frame, and clips everything inside it to the glass. Its lower left corner is at `(0,0)`, so you can place things with ordinary coordinates.

```
\begin{tikzpicture}
\begin{aquarium}[width=13, height=6]
  \vallisneria[at={(1,0.5)}, height=4.5, sway=5]
  \rock[at={(4,0.6)}, variant=2, moss]
  \amazonsword[at={(7,0.4)}]
  \driftwood[at={(10.4,0.6)}, facing=left, scale=0.9]
  \mossball[at={(5.7,0.35)}, face=happy]
  \angelfish[at={(8.5,3.6)}, scale=0.6]
  \neontetra[at={(4.5,4.2)}, school=6, scale=0.4]
\end{aquarium}
\end{tikzpicture}
```



The sand rises from about `0.5` at the front of the tank to about `1` at the back (in units of `substrate height`). Things placed between `y=0.3` and `0.6` have their bases buried in the front lip of the sand; things placed higher appear further back. Draw the background first: later commands are drawn on top.

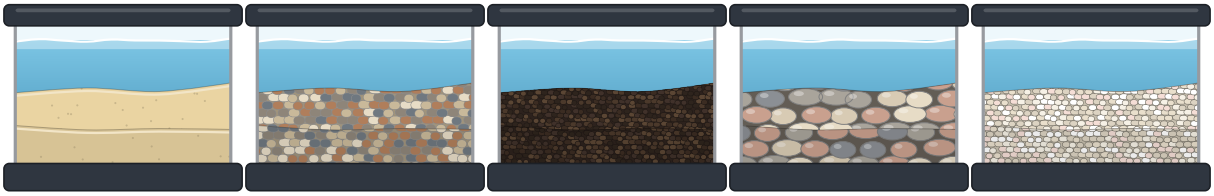
`width`, `height`
: The inside of the tank. The defaults are 14 and 8.

`substrate=`⟨*name*⟩
: What covers the floor: `sand` (the default), `gravel`, `soil` (dark aquasoil, the usual choice for a planted aquascape), `pebbles` (large river stones), `coral` (crushed coral, for a reef tank) or `none`. The `substrate height` (default 1) sets how high it piles up, and `sand` sets the colour of the sand.

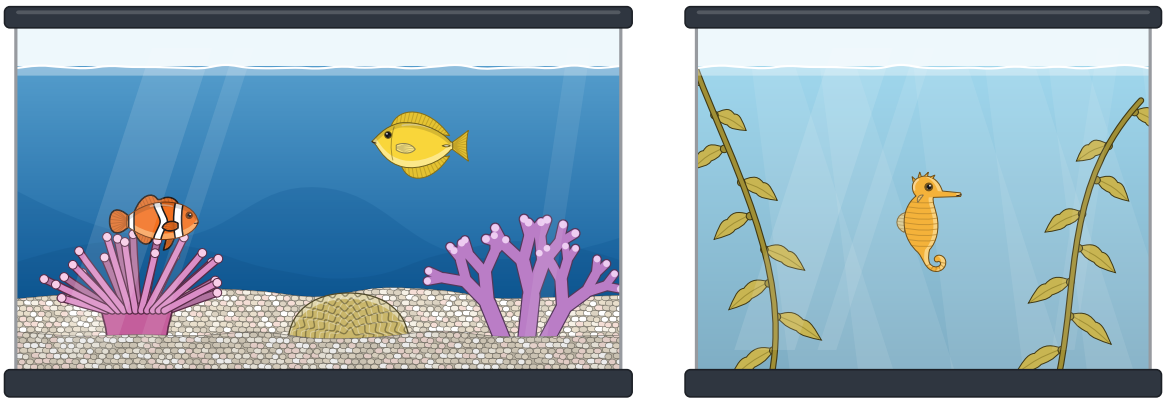
`water=`⟨*colour*⟩
: The colour of the water. `water level` is the fraction of the tank that is filled (default 0.88).

`light rays`, `backdrop`, `glass`
: Rays of light, faint hills in the background, and reflections on the glass. All are on by default; set them to `false` for a plainer tank.

`frame=`⟨*colour*⟩
: The colour of the rim and base.



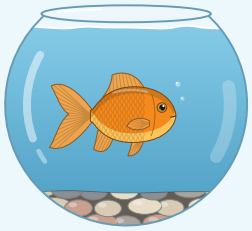

```
\begin{tikzpicture}
\begin{aquarium}[width=8, height=4.6, substrate=coral, water=teal!70!blue,
                 light rays=false]
  \anemone[at={(1.6,0.4)}]
  \clownfish[at={(1.9,2)}, scale=0.4]
  \braincoral[at={(4.4,0.35)}, scale=0.8]
  \staghorn[at={(6.7,0.4)}]
  \yellowtang[at={(5.3,3)}, scale=0.45, facing=left]
\end{aquarium}
\begin{aquarium}[at={(9,0)}, width=6, height=4.6, substrate=none,
                 water=finswater!60, backdrop=false]
  \kelp[at={(1,0)}, height=4, sway=-10]
  \kelp[at={(4.8,0)}, height=3.6, sway=12, seed=4]
  \seahorse[at={(3,2)}, scale=0.6]
\end{aquarium}
\end{tikzpicture}
```



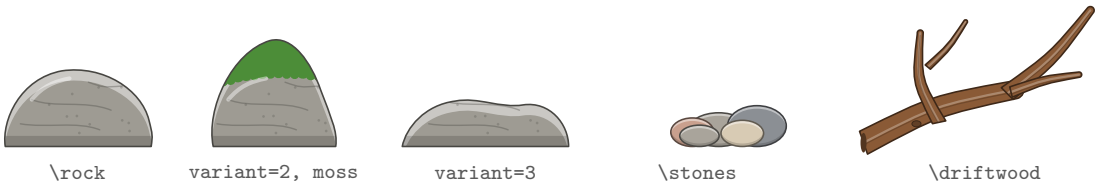
7.2 The fish bowl

The `fishbowl` environment draws a round bowl centred on `at`, with a little gravel at the bottom. `radius` sets its size (default 1.8), and `substrate` takes the same choices as for the aquarium.

```
\begin{tikzpicture}
\begin{fishbowl}[radius=1.6,
    substrate=pebbles]
  \goldfish[at={(0,-0.15)},
    scale=0.55, bubbles=2]
\end{fishbowl}
\end{tikzpicture}
```

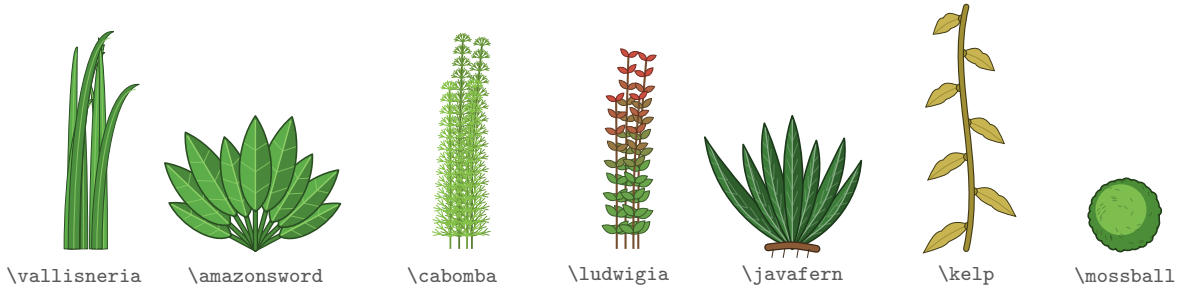


7.3 Rocks and wood



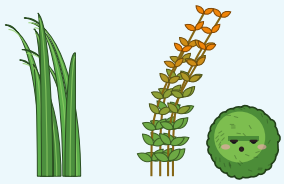
`\rock` comes in three `variants`, and `moss` grows a cap of moss on it. `\stones` scatters `count` pebbles (default 5) over a `width` (default 1.8). Use `body` to recolour a rock.

7.4 Plants

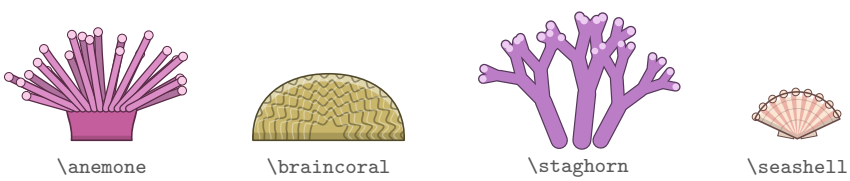


Every plant takes `height`, `sway` (an angle; positive leans to the right, as if in a current) and `seed` (a different random plant). The grassy and stemmy plants also take `count` (blades, stems or leaves) and `width` (how far apart they spread). `\ludwigia` turns from its `body` colour at the bottom to its `accent` colour at the top. `\mossball` takes `radius`, and `face=happy` or `face=sleepy`.

```
\begin{tikzpicture}
  \vallisneria[height=2.4, sway=-12]
  \ludwigia[at={(1.4,0)}, height=2.2,
    accent=orange, sway=10]
  \mossball[at={(2.6,0)}, face=sleepy]
\end{tikzpicture}
```

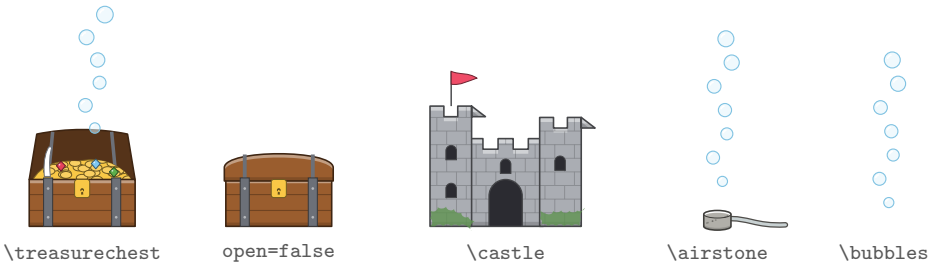


7.5 Reef



`\anemone` takes `count` tentacles (default 22), `height` and `sway`; its tentacles are its `belly` colour with `accent` tips. `\staghorn` takes `count`, the number of times it branches (default 3), and `height`. The starfish are with the other invertebrates in section 4.

7.6 Ornaments and bubbles

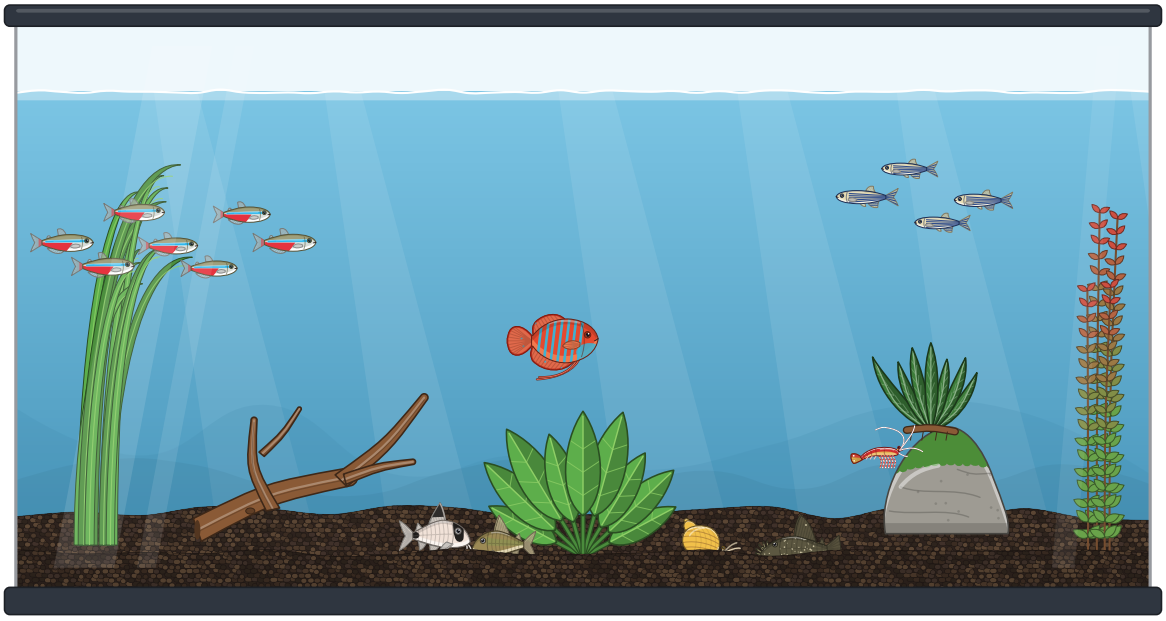


`\treasurechest` is open by default and lets out `bubbles` (none by default). `\airstone` and `\bubbles` take a `height` for their column of bubbles.

7.7 Putting it together

A planted tank on aquasoil, with its clean-up crew on the bottom:

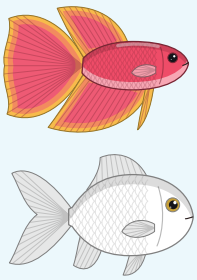
```
\begin{tikzpicture}
\begin{aquarium}[width=15, height=7.5, substrate=soil]
  \vallisneria[at={(0.9,0.6)}, height=5.6, count=12, sway=6]
  \ludwigia[at={(14.2,0.5)}, height=4.6]
  \rock[at={(12.3,0.75)}, variant=2, moss]
  \javafern[at={(12.1,2.1)}, height=1.2]
  \driftwood[at={(4,0.75)}]
  \amazonsword[at={(7.5,0.45)}, height=2.4]
  \corydoras[at={(5.6,0.72)}, scale=0.4]
  \corydoras[at={(6.4,0.6)}, scale=0.36, type=bronze, facing=left]
  \pleco[at={(10.3,0.55)}, scale=0.45, facing=left]
  \snail[at={(9.1,0.42)}, scale=0.38]
  \shrimp[at={(11.4,1.62)}, scale=0.32]
  \gourami[at={(7.2,3.3)}, scale=0.5]
  \neontetra[at={(3.6,4.6)}, school=7, scale=0.32]
  \zebradanio[at={(11.2,5.2)}, school=4, scale=0.32, facing=left]
\end{aquarium}
\end{tikzpicture}
```



8 Colours

Every fish has a `body` colour; setting it also derives a lighter `belly` and a darker `outline`, which you can then set yourself. `fin` colours the fins, `iris` the eye, and `back` and `back opacity` the shading along the back. `fin opacity` makes fins more or less see-through. All of these take any xcolor expression. Set `body` before `belly` or `outline`, because it overwrites them.

```
\begin{tikzpicture}
  \betta[body=finsheart, fin=finsheart,
    accent=finsstar, scale=0.8]
  \goldfish[at={(0,-2)}, body=white,
    belly=white, fin=white!90!black,
    scale=0.8]
\end{tikzpicture}
```



Most fish also have a `pattern` and an `accent` colour:

	`pattern`	`accent`
`\clownfish`	edges of the bands and fins	the bands
`\bluetang`	black marking and fin edges	the tail
`\yellowtang`		the spine by the tail
`\angelfish`	the bars	
`\moorishidol`	the bands	the yellow parts
`\betta`		the rims of the fins
`\guppy`	spots on the tail	the blue spot
`\neontetra`	the neon stripe	the red half
`\swordtail`	edges of the sword	the sword
`\discus`	the wavy lines	
`\tigerbarb`	the bands	red snout and fin edges
`\pufferfish`	the spots	
`\seahorse`	the rings	
`\royalgramma`	eye line and fin spot	the yellow half
`\lionfish`	the red bands	the white of the spines and rays
`\damselfish`	the bars	
`\shark`	the black fin tips	
`\corydoras`	the panda's mask and spots	
`\pleco`		the pale spots
`\gourami`	bars (dwarf) or spots (blue)	the fin edges
`\zebradanio`	the stripes	
`\snail`	stripes on the shell	the snail
`\starfish`	the chips	
`\shrimp`	the red back	the white stripe and antennae
`\hermitcrab`	stripes on the shell	the crab
`\jellyfish`	the horseshoes	the arms

The package defines these named colours, which you can use anywhere:

`finspupil`	`finsface`	`finsbone`	`finsboneline`
`finsflesh`	`finsskin`	`finsskinline`	`finssole`
`finsbubble`	`finsbubbleline`	`finshook`	`finsline`
`finsmouth`	`finslips`	`finstongue`	`finsheart`
`finsstar`	`finsstache`	`finsmask`	`finsstrap`
`finstube`	`finscrown`	`finscrownshade`	`finsparty`
`finstophat`	`finssoilA`	`finssoilB`	`finssoilC`
`finssoilD`	`finssoilE`	`finscoralA`	`finscoralB`



9 Key reference

Key	Values (default)	Notes
Every fish and component		
`at`	coordinate (`(0,0)`)	Centre of a fish; base of a component.
`scale`	number (1)	Also scales line widths.
`facing`	`right`, `left` (`right`)	Mirrors it.
`rotate`	angle (0)	
`body`	colour	Main colour; sets `belly` and `outline`.
`belly, outline`	colour	

Key	Values (default)	Notes
`pattern, accent`	colour	See the table in the colours section.
`seed`	integer (1)	A different random arrangement.
Fish		
`tail`	angle (0)	Swings the tail fin.
`belly up`	`true`, `false` (`false`)	Upside down.
`eye`	name (`normal`)	See section 5.
`eye scale`	number (1)	
`mouth`	name (`default`)	See section 5; `chomp` opens the jaws.
`gape`	angle (110)	How wide `mouth=chomp` opens.
`fin, iris, back`	colour	
`fin opacity`	number (0.92)	Some fish have more see-through fins.
`back opacity`	number (0.14)	Shading along the back.
`inside`	colour	The bitten edge.
`bones`	0–3 (0)	Plain `bones` means 1.
`speed, sweat`	`true`, `false` (`false`)	Speed lines; drops of sweat.
`legs`	`true`, `false` (`false`)	
`hooked`	`true`, `false` (`false`)	
`line length`	number (4)	Length of the fishing line.
`bubbles`	number (0)	Plain `bubbles` means 3.
`says, thinks`	text (empty)	Maths and \\ allowed.
`hat`	`crown`, `party`, `top`, `pirate`, `none` (`none`)	
`snorkel, moustache`	`true`, `false` (`false`)	
`school`	number (1)	Number of fish in the school.
`school spread`	number (1)	
`scales`	`true`, `false`	Scale texture; on for the goldfish and betta.
`puffed`	`true`, `false` (`false`)	`\pufferfish` only.
`type`	name	`\corydoras`: `panda`, `bronze`. `\gourami`: `dwarf`, `blue`. `\snail`: `mystery`, `nerite`, `ramshorn`. `\starfish`: `common`, `chocolatechip`, `linckia`.
`stripes`	3, 4 (3)	`\damselfish`.
`arms`	number (5)	`\starfish`.
`face`	`none`, `happy`, `sleepy` (`none`)	`\starfish`, `\jellyfish`.
Components		
`height, width`	number	Size of plants, coral and bubble columns.
`count`	number	Blades, stems, leaves, tentacles, pebbles or branchings.
`sway`	angle (0)	Plants and anemones lean with the current.
`variant`	1, 2, 3 (1)	`\rock`.
`moss`	`true`, `false` (`false`)	`\rock`.
`radius`	number	`\mossball`.
`face`	`none`, `happy`, `sleepy` (`none`)	`\mossball`.
`open`	`true`, `false` (`true`)	`\treasurechest`.
`bubbles`	number (0)	`\treasurechest`.
Environments		
`width, height`	number (14, 8)	`aquarium`.
`radius`	number (1.8)	`fishbowl`.

Key	Values (default)	Notes
`water`	colour	
`water level`	fraction (0.88; 0.82 for a bowl)	
`substrate`	`sand`, `gravel`, `soil`, `pebbles`, `coral`, `none` (`sand`)	The bowl's default is `gravel`.
`substrate height`	number (1)	`aquarium`.
`sand, frame`	colour	`aquarium`.
`light rays, backdrop, glass`	`true`, `false` (`true`)	`aquarium`.

10 Tips

Order matters
TikZ draws in order, so draw the back of a tank first: tall plants and rocks at the back, then the middle ground, then fish, then anything in front. A clownfish placed after its anemone swims in front of it.

Scaling the whole picture
The package's `scale` key scales line widths with the drawing. If you scale a whole picture with TikZ's own `scale` instead, the lines keep their width. For small figures, prefer the package key.

Compile time
A busy aquarium has a lot of small paths: a full tank like the one on the title page takes a few seconds. Granular substrates, schools and the feathery `\cabomba` cost the most, so while you arrange things, try sand and smaller schools, or externalise finished pictures.

Errors
A misspelled eye, mouth or hat stops with an error message that lists the valid choices.

11 Change history

v0.3 (2026/11/04)
`mouth=chomp` now opens the fish's own head into toothed jaws, with a new key `gape`; full licence notices.

v0.2 (2026/10/26)
Seven new fish and five invertebrates; a truer moorish idol, clownfish, angelfish, blue tang and tiger barb; mouths `chomp` and `fangs`; keys `speed` and `sweat`; substrates `soil`, `pebbles` and `coral`; faster gravel.

v0.1 (2026/10/25)
First draft: 15 fish, 12 eyes, 8 mouths, bones, legs, hooks, bubbles, speech, hats, snorkels, schools, 20 aquarium components and the `aquarium` and `fishbowl` environments.

12 Licence and thanks

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This work has the LPPL maintenance status “maintained”. The Current Maintainer of this work is Vernon Merrick Fanning.

This work consists of the files `tikzfins.sty`, `tikzfins-doc.tex` and `README.md`, and the derived file `tikzfins-doc.pdf`.

All drawings in this work are original. They were made from scratch with Ti*k*Z paths for this package; none is traced from or based on a photograph or on anyone else’s artwork. The animals they show are real species, named by their common names.

Many thanks to samcarter for tikzducks and tikzlings, to Florian Sihler for tikzpingus, and to Till Tantau and the PGF team for Ti*k*Z itself.