

## ***Decantus excutio***

Drink bottles and caps

**Lifespan as entity:** 450+ years

Microplastic legacy: essentially forever

**Behaviour:** Surface drifters during early life. Propensity to cluster into drifts. Their brightly coloured caps are a regular part of the diet for a wide range of seabirds.

**Fun fact:** When the bottle finally breaks up, the tiny pieces of degraded PET plastic will settle out onto the sea bed, along with 70% of all marine plastic.

## ***Asphyxus tyranei***

Plastic bags

**Lifespan as entity:** 500 to 1000 years

Microplastic legacy: essentially forever

**Behaviour:** These cryptics mimic marine jellies and are regularly eaten by turtles, whales and large fish. They cannot be broken down inside a creature's body.

**Fun fact:** May be swallowed, kill the animal that swallowed it, get released as the animal decomposes, and repeat the cycle for hundreds of years.

## ***Kindergratus abandoni***

### Beach Toys

**Lifespan as entity:** 100 to 1000 years (subspecies material dependent)

Microplastic legacy: essentially forever

**Behaviour:** Burrow into sandy beaches only to emerge under cover of darkness and travel out to sea with the tide.

**Fun fact:** Ocean plastics take up and accumulate persistent organic pollutants (POPs) such as carcinogenic and endocrine-disrupting polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and organochlorine pesticides such as DDD.

## ***Saccharo surculus***

Lolly Sticks

**Lifespan as entity:** 1000+ years

Microplastic legacy: essentially forever

**Behaviour:** Juveniles drift upon their tubular air bladder. When mature they lose their air and dive to the sea bed where they burrow into the sediment.

**Fun fact:** These little critters got an upgrade in recent years as previously they were made from paper. Now they are truly mighty little seafarers. Their hardy polypropylene shell means that they outlive their paper ancestors a thousand times over.

## ***Perilous entangleous***

Fishing tackle

**Lifespan as entity:** 600 years

Microplastic legacy: essentially forever

**Behaviour:** Wraps its filamentous tendrils around plants and animals, ensnaring and dispatching them. The floats may keep these tangles suspended up into the water column to maximize the kill rate.

**Fun fact:** This super-long-lived entity hangs around on the seabed to kill, kill, and kill again, across hundreds of years.

## ***Surplus slurpus***

Drinking straws

**Lifespan as entity:** 1000+ years

Microplastic legacy: essentially forever

**Behaviour:** After five minutes of human interaction, straws begin their journey through streets and drains and out to sea. With their low buoyancy they sink as marine life colonises them, finally embedding themselves into the sediment of the murky depths.

**Fun fact:** Coloured straw fragments resembling krill and fish eggs are eaten by small fish, which are eaten by larger fish, passing the fragments up the food chain.

## ***Apparatus discardei***

Disposable cutlery

**Lifespan as entity:** 300 years

Microplastic legacy: essentially forever

**Behaviour:** After five minutes of human interaction, disposable cutlery begins its journey through streets and drains and out to sea.

**Fun fact:** Guaranteed to last at least three lifetimes.

## ***Solea viator***

Thong

**Lifespan as entity:** 400 years

Microplastic legacy: essentially forever

**Behaviour:** A very long-lived ocean navigator, thanks to its tough and buoyant foam body. After several centuries it fragments and sinks into the ocean depths.

**Fun fact:** in 2014, rangers on Cape York removed 7154 thongs from one 10km stretch of beach, the most ever recorded.



## ***Tobaccus ubiquitous***

Cigarette butt

**Lifespan as entity:** 5 years

Microplastic legacy: essentially forever

**Behaviour:** To reach the ocean, these toxic little critters may travel with storm water from as far as 100km inland. Often seen around popular beaches, sunbaking on the sand. After a few years in the ocean environment the fibres spread apart and fragment into hundreds of thousands of near-microscopic particles that last essentially forever.

**Fun fact:** 4.5 trillion are littered each year in Australia

## ***Pumex levis***

Polystyrene foam

**Lifespan as entity:** 50 years

Microplastic legacy: essentially forever

**Behaviour:** This initially buoyant foam blows and floats into the ocean and fairly quickly breaks down into small round particles resembling tasty fish eggs. The smallest constituent pieces are heavier than water and are forming a toxic layer in the ocean sediment across the entire ocean floor.

**Fun fact:** One out of every three fish in the ocean has plastic in its gut.

## ***Icarus corda***

Balloon and string

**Lifespan as entity:** 1000+ years (string only)

Microplastic legacy: essentially forever

**Behaviour:** These flighty creatures soar out over the ocean before inevitably crashing down into their new watery home. They tend to float near the surface and many make their way back to land and make their homes on our beaches

**Fun fact:** All of the specimens shown here are from the base of one system of dunes where they emerged intact after about 10 years hibernation beneath the shifting sands

## ***Floatoxicus phosphori***

Glow stick

**Lifespan as entity:** 300+ years

Microplastic legacy: essentially forever

**Behaviour:** These vivid little floaters cluster with their fishing tackle cousins. Some swim freely, their colours marking them as tasty morsels for a variety of sea creatures.

**Fun fact:** Many glow stick species contain chemically toxic innards that eventually spill out into the environment.

## ***Ignoble ignitious***

Cigarette lighter

**Lifespan as entity:** 1000+ years

Microplastic legacy: essentially forever

**Behaviour:** Initially quite buoyant, lighters begin life in city streets, migrating to the ocean through storm drains. After a year or so of bobbing in the waves, the metal fixture at the top oxidises and detaches allowing oil and air out and water in. The lighter then migrates into the ocean depths where it spends another few millennia.

**Fun fact:** Most lighters are never used more than a handful of times before going AWOL.

## ***Persistus sacchari***

Lolly wrapper

**Lifespan as entity:** 1000+ years

Microplastic legacy: essentially forever

**Behaviour:** Inhabit upper ten metres of the water column impersonating small silvery fish. Regularly fall prey to larger sea creatures.

**Fun fact:** On average there are 20,300 pieces of small floating plastic in every square kilometre of ocean.

## ***Megafloatus maraudei***

Maritime jetsam (ropes, buoys, nets, sails, etc)

**Lifespan as entity:** 1000+ years

Microplastic legacy: essentially forever

**Behaviour:** This great pelagic drifts for thousands of kilometres on the ocean currents, often knotting itself around large sea creatures. Individuals may measure kilometres in length.

**Fun fact:** 100,000 marine creatures die each year from plastic entanglement - and these are the just the ones we find.