

Record Plastic Ingestion in Seabirds

Prelims: Current events of national and international importance | Environment

Why in News?

*A 16-year longitudinal study (2010–2026) documented record-breaking levels of plastic pollution in Flesh-footed (Sable) Shearwater (*Ardenna carneipes*) chicks on UNESCO World Heritage-listed Lord Howe Island, Australia.*

Key Highlights

- Researchers recorded a single fledgling with **894 plastic pieces** weighing **64.21 grams** in its stomach, setting a grim new global record for plastic ingestion in wildlife.
- **Accelerating Record Spikes**
 - In 2011, the peak recorded plastic count per bird was 276 pieces (64.1 g).
 - This was overtaken in 2023 (403 pieces), 2024 (407 pieces), 2025 (894 pieces), and maintained in 2026 (644 pieces / 67.4 g).
- **Equivalency** - The mass of plastic swallowed by these chicks is equivalent to a human adult carrying roughly 6-8kg of plastic debris in their stomach.
- **Ingestion Prevalence** - While the overall population prevalence of plastic ingestion remained relatively stable (75%-85%), the volume and mass per individual bird spiked dramatically over recent years.
- **Dominant Plastic Types** - Bottle caps, hard fragments, and industrial resin pellets (**nurdles**) constituted the vast majority of items recovered.

Seabird Chick Found With Almost **900** Plastic Pieces in Stomach

A new record of plastic pollution in our oceans.



The Victim

A seabird chick



The Culprit

Plastic pollution in oceans



The Impact

Sets a new record for plastic ingestion

Cleaner oceans. Safer wildlife.

Ecological & Physiological Drivers

- **Prey Depletion & Starvation** - Overfishing and ocean warming across the **Tasman Sea** have reduced fish stocks, forcing adult shearwaters to travel further and become less selective, frequently mistaking floating ocean plastic for fish or squid.
- **Direct Transgenerational Transfer** - Starving adult shearwaters scoop up floating plastic debris during long foraging trips and regurgitate it directly into their chicks' stomachs during feeding.
- **Decline in Body Condition**- Fledglings on **Lord Howe Island** now weigh approximately **25% less** than they did a decade ago due to chronic malnutrition.

Pathological Impacts

- **Induction of Plasticosis** - Chronic ingestion of sharp micro- and macro-plastics causes **plasticosis**.

Plasticosis is a unique fibrotic disease characterized by severe inflammation, persistent internal ulceration, and irreversible scarring of the digestive tract (proventriculus and gizzard).

- **Multiple Organ Decline** - Proteomic analysis reveals that microplastics leach toxic additives and heavy metals, causing
 - Cell death in the liver, kidneys, and heart.
 - Reduction (up to 50%) of **Brain-Derived Neurotrophic Factor (BDNF)**, severely impairing brain development, flight readiness, and cognitive function.
- **Stunted Wings** - Obstructed digestive tracts prevent proper nutrient absorption, resulting in stunted wing growth and high pre-fledging mortality.

Reference

[Down to Earth | Seabird found with almost 900 plastic pieces in stomach](#)

