

SELF-MEDICATING ANIMALS



Lucien Tuinstra

WE KNOW that open wounds can get infected with bacteria and become inflamed. For this reason, we sometimes apply an antiseptic medication (like iodine or alcohol) to a wound. Some things in the plant world can have healing power, too, including certain foods. For example, plants that can calm upset tummies.

Humans are not the only ones to have discovered the benefits of certain plants as medicine. Orangutans have recently been observed to do the same, according to a paper in *Nature Scientific Reports*.¹

This observation has caused excitement among evolutionist researchers,

such as lead author Isabella Laumer, biologist at Germany's Max Planck Institute. Laumer said the great apes "are our closest relatives and this again points towards the similarities we share with them."²

An orangutan (*Pongo abelii*) named 'Rakus' on the island of Sumatra, Indonesia, applied a plant paste to an open wound on its cheek (fig. 1). The plant in question is akar kuning (*Fibraurea tinctoria*), known to have anti-inflammatory, antibacterial, antifungal, and anesthetic properties. Rakus made the paste by chewing the plant's stem and leaves. He repeatedly applied his akar-kuning-infused saliva to the open wound before putting the

chewed leaves on top. In other words, it seemed deliberate for Rakus to persevere with the treatment of his wound. It wasn't just an incidental one-off application.

However, the degree of insight this required is not clear. Dr Laumer herself gives a plausible reason why this might have been less impressive than it seems:

It could be that he accidentally touched his wound with his finger that had the plant on it. And then because the plant has quite potent pain-relieving substances, he might have felt immediate pain relief, which made him apply it again and again.²

Or, says the BBC report, he could have learned it from other orangutans (who presumably might have picked up the practice in that way).²

Within five days the wound closed, and after a month Rakus was completely healed.

Chimps, too

Orangutans are not the first apes found to use plants for medicinal purposes. During the 1960s, biologist Jane Goodall observed similar behaviour among chimpanzees in nature reserves/parks. The list is too long to mention here, but chimps have been recorded to use certain plants—sometimes swallowing leaves whole—for different treatments, including fighting off parasites.³ On many occasions it has been

Fig 1. An orangutan (*Pongo abelii*) named 'Rakus' on the island of Sumatra, Indonesia, applied a plant paste to an open wound on its cheek.



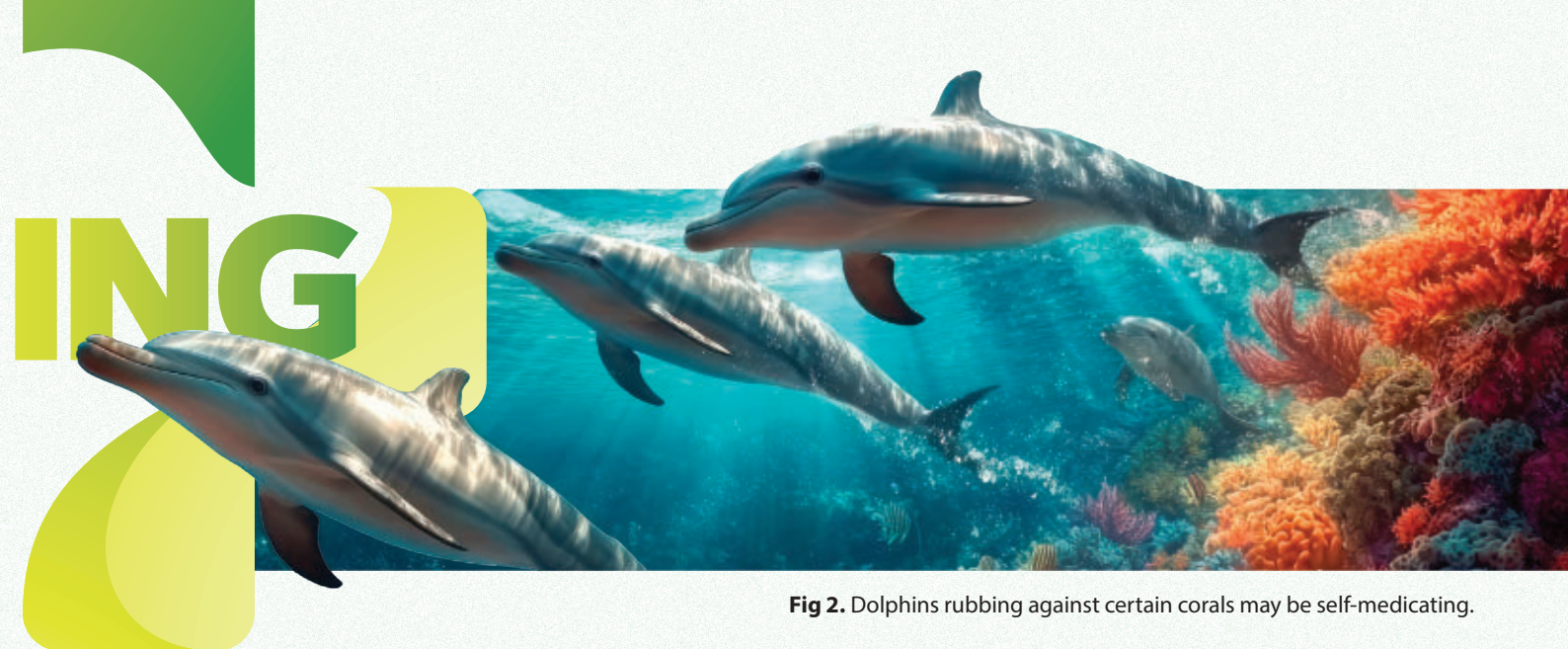


Fig 2. Dolphins rubbing against certain corals may be self-medicating.

noted that people use the same plants for medicinal purposes.

A recent example of self-medicating chimpanzees comes from Uganda. When ill or injured, the chimps sought out ferns with anti-inflammatory properties.⁴

Other examples

These ape observations are not the only instances of animals self-medicating. For example, dolphins (fig. 2) have been shown to deliberately rub against corals and sponges that have medicinal properties, seemingly to ward off skin infections.⁵ One popular science article states that the range of animals observed to engage in this behaviour is very broad. (It is called *zoopharmacognosy*, from Greek *zoon* = animal, *pharmakon* = drug or medicine, and *gnōsis* = knowledge.) Dogs and cats have long been known to induce vomiting for medicinal purposes by eating grass.

Some lizards feed on particular roots to help counteract snake venom. ... Sparrows have been known to integrate cigarette butts into their nests, having somehow discovered that the nicotine residue impedes parasitic mites.⁶

Above the Tambopata River in Peru, sometimes hundreds of parrots (up to 18 species) can be seen landing on the vertical clay cliffs—and eating

the clay (fig. 3)! This behaviour is called *geophagy*, from the Greek *geo* (earth) and *phagein* (to eat). The parrots probably do this to get more of the vital mineral sodium. Sodium is deficient in this area because it is washed away by the frequent heavy rainfall. However, the clay contains a lot of sodium.⁷ While *geophagy* is not quite the same as *zoopharmacognosy*, the clay might also help neutralize the toxins found in some seeds the parrots eat. Over 100 species of non-human primates, have been known to eat clay as well, which also appears to protect from intestinal parasites.⁸ People in various parts of the world have been known to do this also.⁹

Fig 3. Macaws nibbling at a clay cliff in Peru.



Fig 4. African gray parrot

even been known to use the same ploy as a petulant child. He would withhold the correct answer to a question while deliberately providing every conceivable wrong answer. It takes considerable intelligence to know what *not* to say.¹⁰

Pigeons have performed equally well in word-recognition tasks as baboons. This surprised researchers, since evolutionists claim that baboons are more closely related to people.¹¹

Another intelligence-requiring area where birds outperform monkeys is the use—and enhancement—of tools. Crows routinely ‘out-tool’ chimps, and there are numerous YouTube videos that testify to this.¹²

All in all, to quote Prof. Michael Colombo of New Zealand’s University of Otago, “We may have to seriously rethink the use of the term ‘bird brain’ as a put down.”¹³

Clever cephalopods

Even further ‘distanced’ from mankind are cephalopods, a group of invertebrate molluscs such as the octopus (fig. 5). This fascinating creature is remarkably intelligent.¹⁴ Yet, more than half of their brain cells are not even in the central brain, but in their tentacles!

Cunning crayfish

Crayfish (lobster) traps are well known; a netted cage with a funnel-shaped entrance that narrows going into the trap (fig. 6). It was thought that this ‘dumb’ crustacean, an immense ‘evolutionary distance’ from us, couldn’t work out how to exit. However, video research has shown that the traps are being visited by vastly greater numbers of lobsters than the ones caught—the majority simply leave again once they’ve eaten their fill. The only ones usually caught are those unfortunate enough to enter the trap to feast just before it gets hoisted up.¹⁵

It seems the intelligent beings that designed the traps were outsmarted by the lowly lobsters, who are perhaps thinking, ‘So long, and thanks for all the food!’

Whether it’s the surprising smarts of octopuses and lobsters—or brilliant

birds outperforming chimps on the IQ scale—looking at intelligence does not serve the evolution story well. Clearly, God has created animals with more intelligence than we give Him or them credit for. ■

References and notes

1. Laumer, I.B. *et al.*, Active self-treatment of a facial wound with a biologically active plant by a male Sumatran orangutan, *Sci. Rep.* **14**(1):8932, 2024.
2. Rannard, G., Wounded orangutan seen using plant as medicine, [bbc.co.uk](https://www.bbc.co.uk), 3 May 2024.
3. Sears, C., The chimpanzee’s medicine chest: Chimps seem to dose themselves with drugs when they are feeling low. Plants with the power to do chimps good may have potential for treating human disorders, too, [newscientist.com](https://www.newscientist.com), 4 Aug 1990.
4. Jagers, P., Sick chimpanzees seek out range of plants with medicinal properties, [newscientist.com](https://www.newscientist.com), 20 Jun 2024.
5. Joosse, T., These dolphins might be self-medicating, [science.org](https://www.science.org), 19 May 2022.
6. MacDonald, J., How wild animals self-medicate, [jstor.org](https://www.jstor.org), 7 Feb 2018.
7. Beans, C., Why do parrots (and people) eat clay? [npr.org](https://www.npr.org), 7 Sep 2017.
8. Pebsworth P. A. *et al.*, Geophagy among nonhuman primates: A systematic review of current knowledge and suggestions for future directions, *American J. Physical Anthropology* **168**(S67):164–194, 2019.
9. Young, S. L., *Craving Earth: Understanding pica: the urge to eat clay, starch, ice, and chalk* (pbk edn), Columbia University Press, NY, 2011.
10. Catchpoole, D., Petulant parrot proves a point—but atheists can’t (or won’t) see it, [creation.com/petulant](https://www.creation.com/petulant), 26 Sep 2006.
11. Catchpoole, D., Pigeon revision: Brainy birds trump bookish baboons, *Creation* **40**(4):16–18, 2018; [creation.com/pigeon-revision](https://www.creation.com/pigeon-revision).
12. Focus, Crows out-tool chimps, *Creation* **25**(4):7, 2003; [creation.com/focus-254#crows](https://www.creation.com/focus-254#crows).
13. Otago research, Bird brain? Pigeons have quite a way with words, [sciencedaily.com](https://www.sciencedaily.com), 19 Sep 2016.
14. Catchpoole, D., The octopus: Intelligent, evolution-defying master of camouflage, *Creation* **41**(2):28–31, 2019; [creation.com/the-octopus](https://www.creation.com/the-octopus). Also *Creation* **46**(4):10 (Focus), Are octopuses our ‘alien’ cousins?
15. Catchpoole, D., Clever crustaceans, [creation.com/clever-crustaceans](https://www.creation.com/clever-crustaceans), 26 Feb 2008.

Fig 5. The octopus: far smarter than we thought



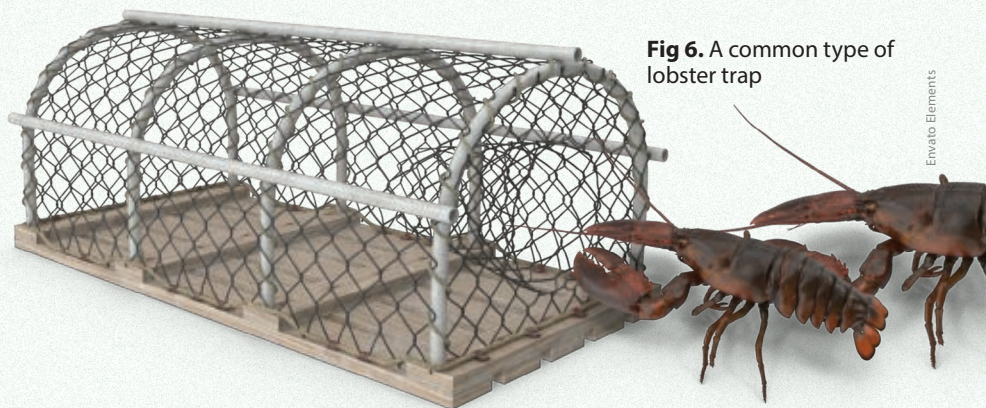
Pixabay



LUCIEN TUINSTR A B.Sc., M.C.Ed.

After graduating in applied physics in his native Netherlands, Lucien worked in Spain and then the UK in technology/engineering in the gas industry. A long-time biblical creationist, he has a Masters in Christian Education from ICR in the US, and is a fulltime speaker/writer for CMI-UK/Europe. For more, see [creation.com/lucien-tuinstra](https://www.creation.com/lucien-tuinstra).

Fig 6. A common type of lobster trap



Envato Elements