

## Bearing Strangers

### Exceptional evidence

In science, the exception is often more interesting and informative than the rule. And if these cases are examined through eyes of faith, one may also see evidence of God's knowledge and power on display. One such exception is found in the unique camouflage of the marine "carrier-shell" mollusk. Camouflage is a form of visual deception using color and pattern. Hunters wear "camo" clothing to blend into the surrounding environment.

Animal camouflage is based on the same principle as that used by hunters, except that animals generally do not choose their camouflage. Instead, hair color and patterns are genetically inherited, although they may change with age or season of the year. For example, a white-tailed deer fawn is reddish brown with white spots at birth. This cryptic coloration is so effective that a doe can leave her fawn hidden in the grass for hours while she feeds. The spots later fade away about the time the fawn is weaned.

An exception to the rule of inherited camouflage is the family of Xenophoridae mollusks that live in the tropical water of the western Pacific.<sup>1</sup> Mollusks are soft-bodied animals without an internal skeleton. Some, like snails and clams, live in protective shells while others, like octopus and squid, do not. Xenophora (Greek for "bearer of strangers") mollusks are called "carrier-shell" mollusks because the animal deliberately picks up empty shells, fragments of shells, or small rocks and cements them to its own shell. Using its muscular foot, this mollusk can take up to 1.5 hours to select, clean, rotate, and fit an object onto the shell. Actual cementing may take up to ten hours! While this process makes the shell stronger, it is also effective camouflage against predators.



Exceptional as this behavior is, it is even more incredible because the animal under the shell is essentially blind. While it may have some light sensitive pigment spots, they cannot form an image. Does this blind mollusk really know that other animals use their vision to hunt for it and, in response, camouflage its shell to avoid being seen? Probably not. Xenophora does not have a large brain so the camouflage behaviors are likely pre-programmed

instinctive actions.

"Bearing strangers" as camouflage does help Xenophora survive. But does this camouflage reveal more than it conceals? Perhaps this particular exception to the rule of inherited camouflage reveals the presence and power of a divine Designer who understands what Xenophora does not. Exceptions like Xenophora are hard to explain by sequential steps of natural selection since the behaviors of choosing, cleaning, rotating, and cementing are all needed simultaneously to create the camouflage. And if these behaviors have survival value, why do no other mollusk families exhibit these same behaviors? By contrast, a divine Designer would understand the survival value of camouflage for a blind animal hiding under a shell. An exception to the rule, yes, but also one in which we see the knowledge and power of the Creator on display before our eyes. 🌀

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1 J. L. Douglass, John Douglass (illustrated by), Roger Tory Peterson (series editor), *Peterson First Guide to Shells of North American* (Boston, MA: Houghton Mifflin Co., 1998).