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Stealthier than we thought

In Freycinet Marine Park off the Tasmanian coast, a school of jackass morwong (*Nemadactylus macropterus*) hovers behind a Melbourne skate (*Spiniraja whitleyi*) attempting to feed on a baited remote underwater stereo video system (stereo-BRUV), which works by attracting fish into the camera's field of view using bait in a container on the end of a pole – a method that has become an internationally endorsed best practice (*Methods Ecol Evol* 2020; doi.org/10.1111/2041-210X.13470) for monitoring the diversity and size of marine fishes. The Melbourne skate – the largest of Australian skates – feeds on or just beneath the ocean floor, preying on mobile invertebrates and small benthic fishes. Skates are known to excavate buried prey by "wing flapping", to stir up bottom sediment; by hydraulic mining, whereby repeated jaw opening and closing generates water flow in and out of the buccal (oral) cavity and resuspends food and sand; and lastly, by suction. The jaws of skates are only loosely connected to the cranium, an anatomical development that allows these cartilaginous fish to protrude their jaws a short distance from their heads when feeding. This action, in turn, creates suction for picking or pulling prey off the sea bottom, accompanied by sediment. The latter is ejected out of the skate's mouth, spiracles, or gill slits once the food is separated from the sediment within the mouth.

We documented one individual skate exhibiting – to the best of our knowledge – a previously unknown foraging behavior for the species: ambush hunting. The behavior was observed on a stereo-BRUV deployed at a depth of 80 m in Beagle Marine Park. The skate glides stealthily behind a large school of potential prey (*Thamnaconus degeni*) before a swift burst of speed to "pounce" over them using its large pectoral fins in an attempt to corral them toward its mouth (see https://bit.ly/3UoaZUr). While the attempt was ultimately unsuccessful, it does make you wonder if the skate is a more aggressive hunter than previously thought. Should we reconsider the trophic role that skates may play in ecosystems? Or was this simply a response to the bait?

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