

Visual signals of the East Pacific red octopus (*Octopus rubescens*) during conspecific interactions

Multiple species of octopuses have recently demonstrated the use of specific visual signals (such as chromatic, postural, locomotor, and textural signals) to communicate with conspecifics. This study aimed to identify the visual signals of the East Pacific red octopus, *Octopus rubescens*, during interactions with conspecifics. *Octopus rubescens* were collected from Admiralty Bay, WA – a habitat littered with discarded glass bottles which *O. rubescens* opportunistically use as dens. To identify the visual signals of *O. rubescens*, cameras recorded videos of octopuses interacting with conspecifics of the same and opposite gender in an observation tank over the course of 15 mins. *Octopus rubescens* were predominantly aggressive toward conspecifics, but nonetheless displayed visual signals, such as ‘upright’, ‘attack’, ‘approach’, ‘ochre’ and ‘dark ochre’, which were recorded in an ethogram. Due to the unique habitat of Admiralty Bay, the observed visual signals of *O. rubescens* may be highly specialized compared to other *O. rubescens* individuals living in different habitats. Consequently, the ethogram produced in this study may be used as a source of comparison for future studies documenting the visual signals of this species in other habitats; this could reveal potential variations in visual signals and may suggest that the visual signals used by *O. rubescens* are influenced by their surroundings.

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