

Evaluating feeding preferences of *Elysia chlorotica*: Is *Vaucheria litorea* the preferred alga?

The gastropod *Elysia chlorotica* is a relatively uncharacterized organism. I explored whether or not the photosynthetic sacoglossan *Elysia chlorotica* feeds exclusively on *Vaucheria litorea* by using choice/no-choice assays, and if the slug locates its prey chemoreceptively in a Y-maze. The assays demonstrated that *E. chlorotica* fed solely on *V. litorea*, but the slug did examine the other species of algae. In the Y-maze, *E. chlorotica* showed no significant difference when swimming towards *V. litorea* or the experimental algae, demonstrating inefficient chemoreceptive capabilities. It became evident that mechanoreception is the major sense *E. chlorotica* utilizes to locate *V. litorea*. The unpredicted importance of mechanoreception and unexpected inefficiency in *E. chlorotica*'s chemoreceptive capability makes evident the need to further characterize this sacoglossan.

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