**Title** Spatiotemporal patterns of invasive Devilweed *Sargassum horneri* in beach-cast seaweed wrack on San Nicolas Island, California

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**Abstract**

**Intro**

**Methods**

We surveyed large wrack piles deposited on beaches and rocky shorelines along San Nicolas Island and measured the proportion of the wrack pile surface area Devilweed represented (DeSantiago et al. 2024). This qualitative metric of Devilweed prevalence allowed us to quickly and instructively sample large amounts of wrack at various sites along the coast. We selected the first ?? wrack piles (>1m length) we encountered along a haphazardly placed 50 m transect. To determine the surface area of wrack piles, we measured the depth at the center, the longest length and width of the pile. These measurements were used to calculate the surface area of a half of an ellipsoid, using equation ######. For each Devilweed individual encountered on the surface of the pile, we measured its longest length and width to calculate the area using the equation for an ellipse (*A=πab*), where “a” and “b” are one half the length and width. For a single pile, we calculated the sum area of all Devilweed individuals and divided it by the surface area of the pile to estimate the proportion of wrack that consisted of Devilweed. Using this method, the relative contribution of Devilweed to wrack for a large pile could be estimated in minutes as opposed to hours (DeSantiago et al. 2024).

**Data Analysis**

**Results**

**Discussion**