

**Figure S1.** Relationships between germination and collecting year in *Daucus carota* populations. The solid line shows the linear regression model, and the shaded area shows the 95% confidence interval.

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**Figure S2.** Relationships between embryo-to-seed length (E:S) ratio and seed germination characteristics for European and North American *Daucus carota* populations incubated at 20°C. Here, the relations were separately investigated for each populations.