

# 日本の暖温帯に生育する海浜植物 14 種の海流散布の可能性

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Thalassochory potential in 14 species of coastal plants in the warm temperate zone of Japan

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Thalassochory potential was investigated for fourteen plant species (eleven native species and three alien species), which were dominant and/or characteristic species of coastal sand dunes in the warm temperate zone in Japan. The buoyancy and the viability of their disseminules in sea water (simulated by 3.45% sodium chloride solution) were examined in a laboratory. Fruits of *Fimbristylis sericea* did not float in sodium chloride solution, suggesting that this species would not be dispersed by sea currents. Grains of *Ischaemum antheploroides* and *Zoysia macrostachya* floated for about ten to twenty days, suggesting that these species would be capable of dispersion by sea currents for a short period. Fruits or seeds of the other native coastal plants, i.e. *Lathyrus japonicus*, *Glehnia littoralis*, *Calystegia soldanella*, *Vitex rotundifolia*, *Ixeris repens*, *Wedelia prostrata*, *Carex kobomugi* and *Carex pumila*, continued to float and remained in sodium chloride solution for at least two months, suggesting that they would have high potential for thalassochory. On the other hand, disseminules of three alien species, *Oenothera laciniata*, *Diodia teres* and *Lolium rigidum*, did not float in the solution, suggesting that these alien species would not be dispersed by sea currents. However, these alien species can also be distributed in inland habitats, and they can be dispersed from inland seed source to coastal sand dune areas. If fragmentation of coasts takes place artificially and disrupts the structure of meta populations, native coastal plants which have limited capacity for thalassochory will disappear, since their disseminules would not be able to migrate again following extinction of the local population.

**Key words:** alien species, coastal vegetation, dispersal ecology, hydrochory, seed dispersal