

Interactive comment on “Colonization of an empty island: how does a plant with a plastic gender system respond?” by M. Philipp and H. Adersen

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Most of the comments are on the possibility of identifying one individual. We agree that on a sandy beach with wave erosion and other disturbances it may be difficult to identify individuals of *H. peploides*, but on Surtsey the conditions are quite different. Except for wind erosion there are hardly any disturbance that may break up individuals and in all our plots the individuals are well spaced from each other and without other species amongst them (except the one in the gull colony) - so it is as easy and unproblematic to identify, count, and measure individuals as tree trunks in a forest. We have never observed or read reports that disrupted fragments of *H. peploides* could act as dispersal elements. Again, we believe that in this respect the species is much more similar to trees than to rhizomatous grasses – if a branch breaks off it will most likely

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simply die.

With respect to marking of individuals it was started around 1970 and the emergent seedling and juvenile plants had a numbered wooden stick (around 50 cm high) placed in the soil beside them. Many of these sticks are still extant – in many cases the plant has disappeared but in the case of the plants we sampled there was no doubt which plants belonged to which stick.

In many of the Surtsey Reports there are good pictures verifying the appearance of *Honckenya* on Surtsey

P. 10653, line 17: Change "weakly significant" to "non-significant"

P. 10653, line 22: Change "12" to "13"

P. 10656, line 7: Insert reference after Sánchez-Vilas and Retuerto 2009: Sánchez-Vilas et al. 2012. The full reference is: Sánchez-Vilas, J., Bermúdez, R. and Retuerto, R.: Soil water content and patterns of allocation to below- and above-ground biomass in the sexes of the subdioecious plant *Honckenya peploides*, *Ann. Bot. London* 110: 839-849, doi: 10.1093/aob/mcs157, 2012.

P. 10656, line 25: Insert after "We conclude" "based on indirect evidence"

Interactive comment on Biogeosciences Discuss., 11, 10647, 2014.

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