

## ***Interactive comment on “Surtsey and Mount St. Helens: a comparison of early succession rates” by R. del Moral and B. Magnússon***

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**General comments** In this manuscript, the authors describe and compare vegetation succession on two very different volcanoes in the northern hemisphere. Common elements are identified and specific insights into successional processes are obtained. A range of measures of succession is used, leading to significant advances in knowledge. Overall the manuscript is high quality, with interesting insights that are broadly applicable.

**Specific comments** p. 6 line 7/8. “Richness loses utility once it ceases to increase, while species continue to change”. I can see that this statement is valid in the early stages of succession. In later stages of succession, perhaps beyond the time scales recorded in these two studies, richness declines could also be informative, couldn't

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they? Perhaps a reference to timeframes would be helpful here. p. 14 line 14. The use of the word “invaders” seems out of place. “Colonisers” would seem to be the more appropriate word as there is no indication that any of the species that established on the new volcanic surfaces were non-native species. p. 16 line 20. This sentence begs the question “what is the end point of succession”. This may be something to consider in general in the manuscript (refer to the first specific comment above), that the climax vegetation is not described. I don’t think that is possible for Surtsey as the situation is so novel, but may be for Mt St Helens.

Technical corrections p. 5 line 7: delete the “s” on the second word (plots) p. 5 line 21: is there another way to describe “1/4 m2 quadrats”, e.g., are they 25 x 25 cm quadrats? p. 6 line 8: add “s” to “cease” p. 10 para 1: refer to Fig 14a p. 12 line 3: change “its” to “their” p. 12 line 12: lower case p for Pumice p. 14 line 3: delete the words “rate ranks” p. 14 line 10: change “its” to “their” Tables 2 and 3: in footnote 1, add a reference to Appendix A as the key to names. Table 3: Cover (%) column – the value for Studebaker Ridge is given as 62.4, yet this is outside the range for low elevation sites of 11.3-35.9

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**BGD**

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