

24-25. Change the sentence "confirm the direction of climate change" is not applicable to the work done, more of shoinge effects on the birds.

35. The Smew cannot be classified as a piscivore in the same way as the Goosander (and the Red-breasted merganser). It is correct that it feeds on very small fish but it also feeds on small evertebrates like amphibodes etc. It is more dependent on the shallow water except in special circumstances.

45. The paper of Lehtikoinen et al. 2013 Rapid climate driven shifts in wintering distributions of three common waterbird species. *Global Change Biology* 19: 2071 -2081. Should be discussed in the paper as it analysis the changes related to climate change for three of the species discussed in the present contribution.

47. "The migration distance of southern and western species" This sentence is not clear. The birds discussed are not the southern species but species from the north and northeast migrating to the southwest. Reformulate and make it more clear.

53. maybe this is true for some birds, but another explanation can be that the birds experience the freezing over of the shallow water, then moving to deeper water and then eventually give up and migrate south.

58. One factor to consider and discuss could be the energy used for diving. With freezing conditions the shallow areas got ice-covered leading to more energy and time used to reach the food in deeper waters changing the energy balace.

103. It would be more interesting to have an estimate of the food per square meter and a comparison with the food densities in other areas used by feeding ducks of these species such as other estuaries and the inner bays of the Baltic archipelagos (e.g. Hanöbukten).

123. You should comment on the efficiency of the ground compared with the aerial surveys you have undertaken in the area. How well do you cover the birds from the shore compared to estimates from the aerial surveys.

136. Is this detailed information about the coding system used in the study? The interesting information in relation to the birds is actually the total ice-coverage.

227. In the discussion of the Tufted Duck (and Goldeneye and Goosander) you totally miss the work by Lehtikoinen et al. who analysis the International Count Data for these species in relation to climate change.

239 I am uncertain if this is the right way to calculate the total population for the species. Anyhow, for the Pochard you should consult the review by Fox et al Recent changes in the abundance of Comon Pochard *Aythya ferina* breeding in Europe. *Wildfowl* 66:22-40 (Fox,A.D., Caizergues,A., Banik,MV., Devos, K., Dvorak,M., Ellermaa,M., Folliot, B., Green,A.J., Grüneberg,C., Guillemain,M., Håland,A., Hornman,M., Keller,V., Koshelev,A.L., Kostiuszyn,V.A., Kozulin,A., Lawicki,L., Luigujoe,L., Müller,C., Musil,P., Musilova,Z., Nilsson,L., Mischenko,A., Pöysä, H., Sciban,M., Sjenici,J., Stipniece,A., Svazas,S. & Wahl, J.)

240. See comment for line 227!

269. The changes in Sweden have not been a direct increase in the long run. There was more of fluctuations with increases during mild periods and low numbers during cold periods but the long-term trend is increasing.

271. Compared to the bottom-diving ducks the Coot is more sensitive to cold weather and old studies (unfortunately I do not remember the reference) from the Netherlands show heavy mortality after cold winters (also shown in Swedish breeding bird surveys) after which the population recovered during mild winters. Thus in contrast to the ducks I think we do not only have a missed reaction to better habitat conditions.

298. The work by Lehtikoinen et al see comment on line 45 should be discussed in this context.

426. There is no reference to Nilsson & Haas (2016) in the reference list although the work was cited several times in the discussion.

485. Why using these estimates based on old surveys recalculated based on the trend and not using the more recent estimates published by Wetlands International on the INTERNET in Waterbird population estimates ??? This may also influence Table 3.