

Editorial

This year IAS invested in a new homepage as the old one was getting outdated and did not fulfil security requirements. When the new homepage was designed, we prioritized simplicity, functionality and clarity, where our emphasis is on the easy accessibility of the published works, both for computers and smartphones, and that it would be informative to our prospective authors. We welcome comments and suggestions on how the homepage could be further improved.

According to the World Meteorological Organization (WMO) 2018 is expected to be one of the four warmest years since climatic records started. The 20 warmest years have been in the past 22 years and global warming will continue. This challenges the scientific community to provide answers to how the warming will influence the ecology as a whole; with longer growing seasons, new species, changes in species composition, new diseases, carbon storage and balances in vegetation and soils and so on. To be able to answer these questions immense research efforts are desperately needed.

In the present issue the article by Marja Maljanen, Hem Raj Bhattacharai, Christina Biasi and Bjarni D. Sigurdsson deals with emission of gases from naturally geothermally heated soils in the ForHot project in S-Iceland, showing that with increasing soil temperature to about 20°C carbon dioxide emission increases and in addition nitrous acid (HONO) is released. Other newly published results from the ForHot project show that with increasing soil temperature the soil organic carbon content decreases. Indeed alarming results for those who attempt to increase and manage soil organic carbon in Iceland.

Two articles deal with forestry. The first one by Dennis Riege and Aðalsteinn Sigurgeirsson is on the provenance variability in establishment of native downy birch on eroded infertile soils in southwest Iceland. After 14 years of observation they recommend high-performing downy birch provenances for afforestation with initial artificial fertilization, accompanied by simultaneous seeding of lupine. The second article by Thorbergur Hjalti Jónsson and Arnór Snorrason tested single tree aboveground biomass models for native birch in Iceland. They tested several models and recommend their own models for general use in Iceland for inventories of native birch forests and woodlands. These two articles are valuable for the continuous efforts of afforestation in Iceland which is an important measure against soil erosion and for increasing carbon stocks in the Icelandic ecosystems.

Two articles deal with imported diseases. A major review article by Valgerður Andrésdóttir is on the maedi-visna virus. Maedi-visna virus (MVV) is a lentivirus of sheep causing inflammation in many organs, primarily the lungs and CNS. In the introduction Valgerður says: "Maedi (an Icelandic word for "breathlessness") and visna (meaning wasting) are diseases that were brought to Iceland in 1933 with imported sheep of the Karakul breed. These diseases had gone mostly unnoticed in many countries, but the Icelandic sheep, which had been in almost total isolation in Iceland for over a thousand years, proved to be very susceptible to them". The second article by Karl Skírnisson, Guðný Rut Pálsdóttir and Matthías Eydal reports on parasites of dogs and cats imported to Iceland during 1989 – 2017 with remarks on parasites occurring in the native populations. Thus the two articles touch the problem of new infectious agents and diseases that are brought to the country and threatens the native breeds. With increasing globalization and global warming the number and danger of imported pests and diseases with food, animals and plants will increase and Iceland is well advised to be alert, be strict on import of uncooked meat, living plants and soil and live animals as indeed many countries do and also continue and strengthen research in this field.

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