

Supplementary material

Models for predicting fire ignition probability in graminoids from boreo-temperate moorland ecosystems

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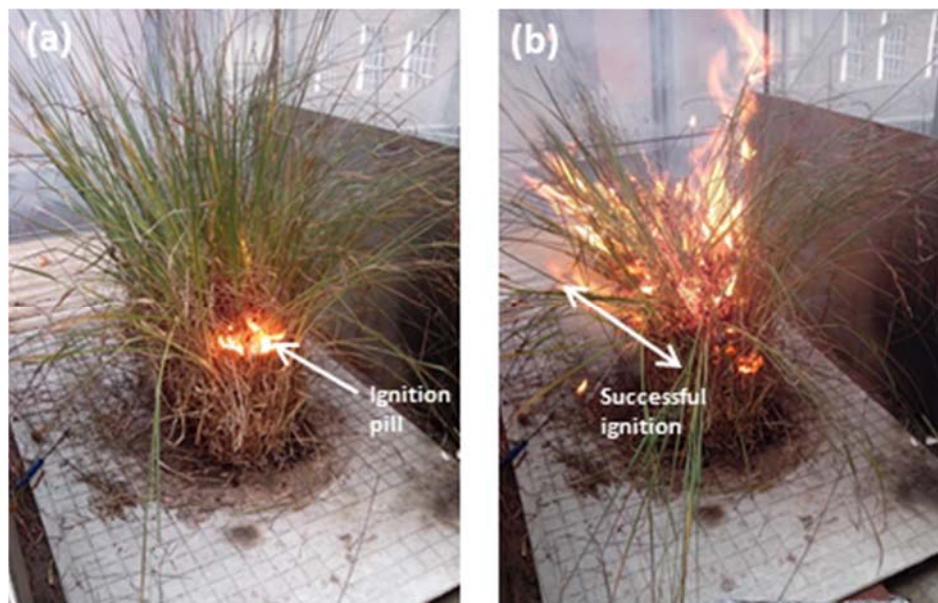


Fig. S1. Grass square used in the ignition tests: (a) the beginning of the test when the ignition source is started at the front of the square, and (b) a successful ignition where the flame produced reached the bottom of the square.

Table S1. Comparison of fuel moisture content (FMC) at which 50% of ignitions were successful (M_{50}), and maximum FMC at which successful ignition occurred (M_{max}) for different fuel types in (a) British moorlands and heathlands, and (b) other ecosystems

Values were obtained after the application of flaming and smouldering ignition sources.

(a) British Moors

| Fuel type | Species | M_{50} | | M_{max} | | Reference |
|--|--|----------|-------------|-----------|-------------|--------------------------------------|
| | | Flaming | Smouldering | Flaming | Smouldering | |
| Peat/litter | <i>Calluna vulgaris</i> | 15.2 | 26.9 | 12.8 | 33.2 | Santana and Marrs 2014 |
| | <i>Vaccinium myrtillus</i> | – | 25.1 | – | 51.3 | Santana and Marrs 2014 |
| | <i>Empetrum nigrum</i> | – | 19.1 | – | 36.2 | Santana and Marrs 2014 |
| | <i>Ulex europaeus</i> | – | 35.1 | – | 52.9 | Santana and Marrs 2014 |
| | <i>Sphagnum</i> spp. | – | 54.4 | – | 71.4 | Santana and Marrs 2014 |
| | Peat | – | 21.6 | – | 46.1 | Santana and Marrs 2014 |
| <i>Calluna</i> vegetation | 20% of dead fuel proportion | 29.8 | 19 | 45.7 | 24.4 | Santana and Marrs 2014 |
| | 40% of dead fuel proportion | 31.5 | 28.4 | 44.3 | 41.1 | Santana and Marrs 2014 |
| | 60% of dead fuel proportion | 29.8 | 35 | 50.4 | 44.5 | Santana and Marrs 2014 |
| Graminoid species | <i>Eriophorum angustifolium</i> | 47.8 | – | 53.7 | – | This work |
| | <i>Eriophorum vaginatum</i> | 36.1 | – | 52.7 | – | This work |
| | <i>Molinia caerulea</i> | 48.1 | – | 56.3 | – | This work |
| (b) Other ecosystems | | | | | | |
| Greek grasslands | <i>Avena barbata</i> Pott. ex Link | 38 | – | – | – | Dimitrakopoulos <i>et al.</i> (2010) |
| Western Australian spinifex grasslands | <i>Triodia basedowii</i> E. Pritz. and <i>T. schinzii</i> (Henrard) Lazarides | 35 | – | – | – | Burrows <i>et al.</i> (1991) |
| Indonesian grasslands | <i>Imperata cylindrica</i> (L.) Raeuschel | 35.4 | – | – | – | de Groot <i>et al.</i> (2005) |

References

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