

**Title: Do non-native plants affect terrestrial arthropods in the sub-Antarctic Kerguelen Islands?**

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Online resource 1: Description of vegetation categories used to map vegetation on the three islands studied

Steppe dominated by non-native Poaceae: sparse vegetation exposed to wind and hydric stress, dominated by non-native Poaceae, typically *P. pratensis* or *Dactylis glomerata*

Tall grassland of non-native Poaceae: tall, dense and closed grassland largely dominated by non-native Poaceae like *P. pratensis*, *D. glomerata*

Mixed herbfield of native and non-native species: a class corresponding to transition communities between native community and non-native community. This class is very heterogeneous and contains plants formations in which native species and non-native species have similar abundances. Typically, we can find in these formations *A. magellanica* with non-native species like *Poa pratensis* or *Taraxacum sp.*

Tall herbfield of *Acæna magellanica*: closed tall herbfield largely dominated by *A. magellanica* (more than 95 % of cover)

Tundra of *Azorella selago*, *Acæna magellanica* and *Festuca contracta*: community with similar species composition than the “Native herbfield of *A. selago*, *A. magellanica* and *P. antiscorbutica*” but less developed and occurring in more constraining habitats, exposed to wind and less drained

Native herbfield of *Azorella selago*, *Acæna magellanica* and *Pringlea antiscorbutica*: native plant community dominated by four emblematic species of the Kerguelen Islands, *A. selago*, *A. magellanica*, *P. antiscorbutica* and *Festuca contracta*. Since the beginning of the 2000s’ this formation is very rare in the Eastern side of the Kerguelen Islands

Open cushion-carpet of *Azorella selago*: typical plant formation of sub-Antarctic islands dominated by *A. selago*, which forms large cushions, sometimes merged

Mire: wetlands dominated by native species like *A. magellanica*, *Agrostis magellanica*, *Uncinia compacta*

Steppe dominated by native Poaceae: sparse vegetation exposed to wind and hydric stress, dominated by native Poaceae, typically *F. contracta*

Fellfield: sparse cover of low-growing (often cushion-forming) plants occurring on exposed rocky ridges and plateaus