Ecosystem Description

Aniko B. Toth

## Ecosystem Env1\_sdm1, Mesic warm coastal lichenfields

Env1\_sdm1, Mesic warm coastal lichenfields. Primarily occurs on flat, rocky coastlines or low outcrops, which have frequent cloud cover and may receive thick seasonal snow cover. Exposure to meltwaters is higher than other ecosystem types in the group. The dominant biota include several lichen species. Includes areas suitable for penguin colonies (Gentoo, Chinstrap), except where adjacent to ice shelves.

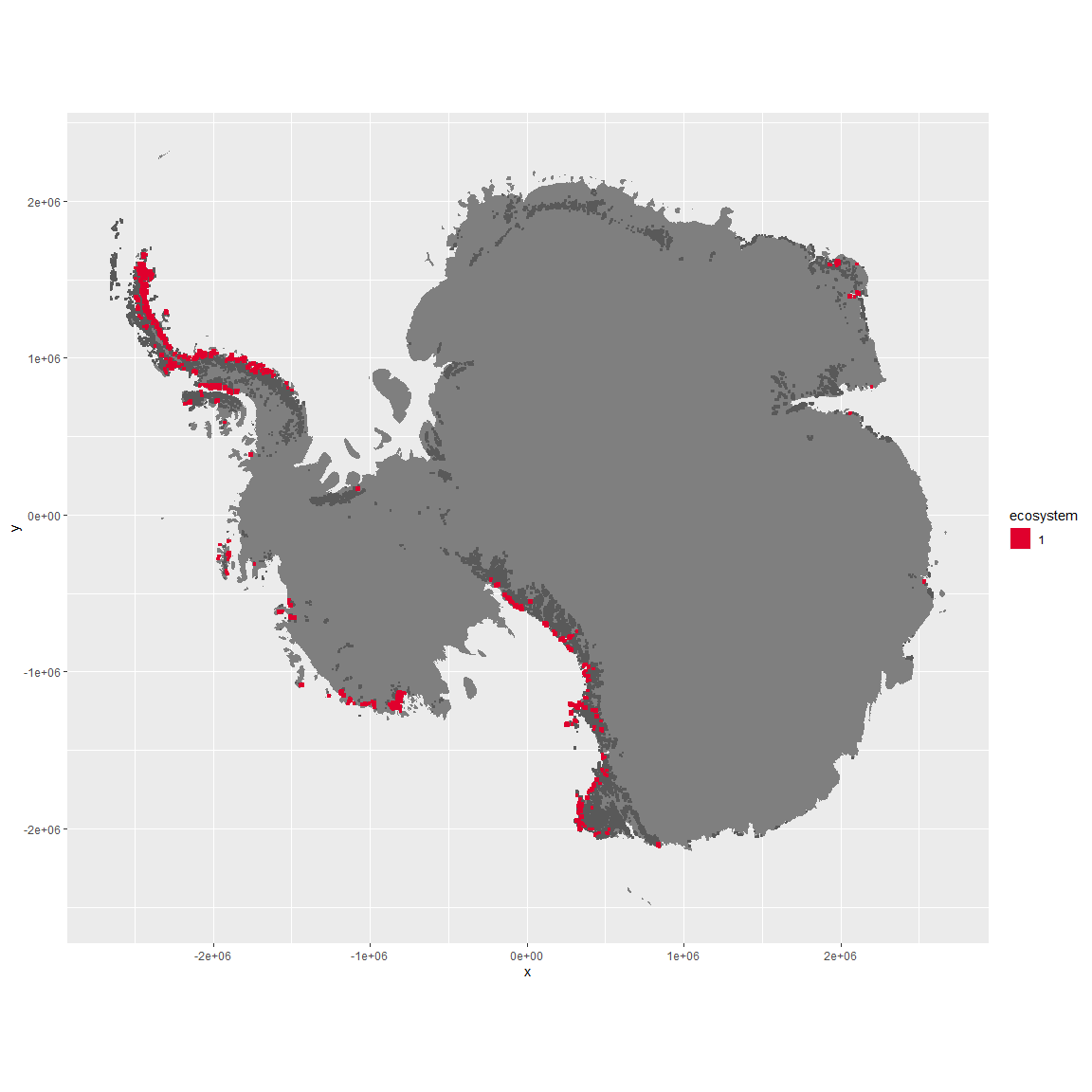
### Photos (if available)



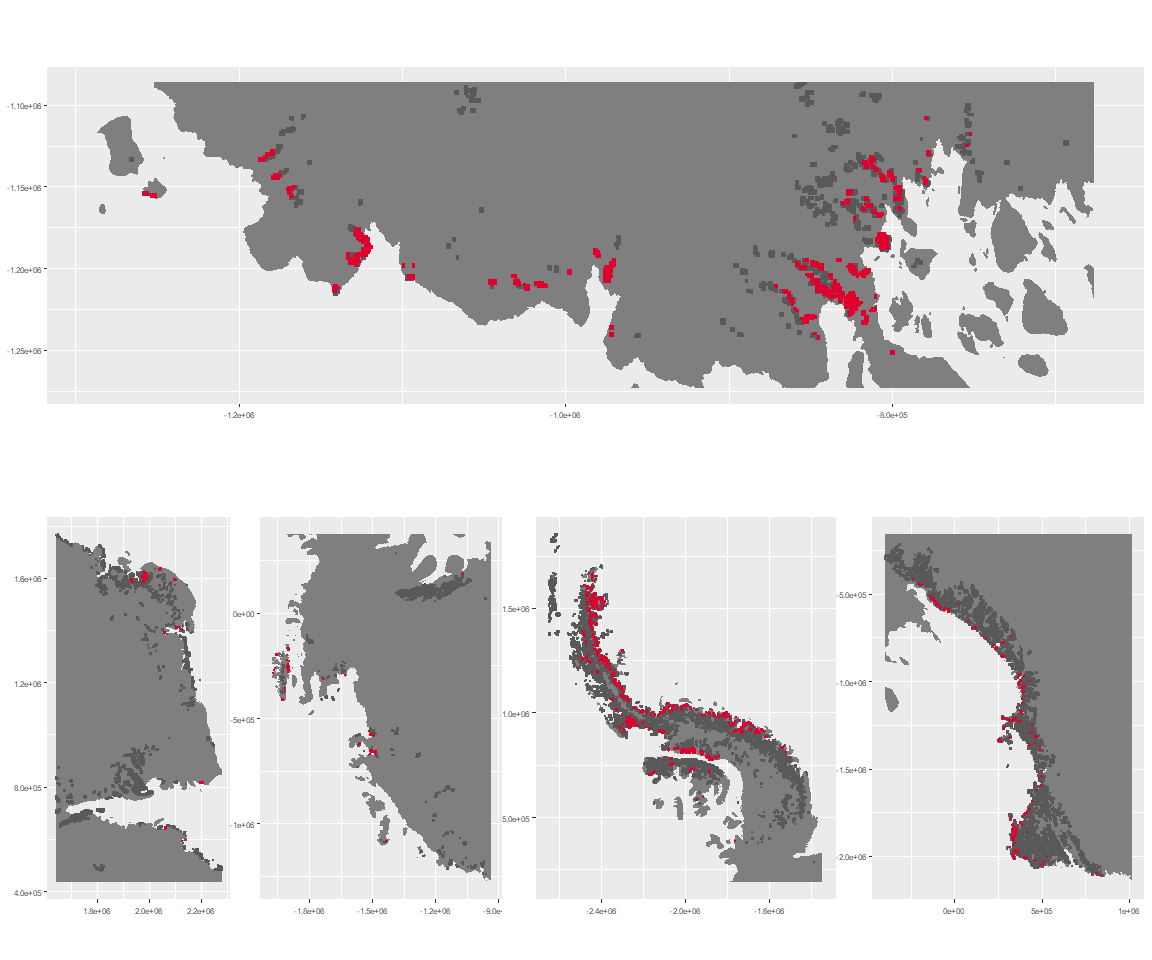


### Distribution

Maps - Full map



Smaller maps



### Environment

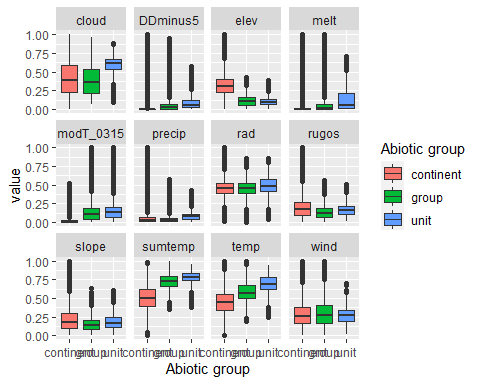
The unit env1\_sdm1 is part of the environmental supergroup env1.

This supergroup is, on average, substantially higher in sumtemp, temp, modT\_0315 and melt than continental antarctica. It is substantially lower in slope, rugos and elev than the rest of the continent.

The elevation of unit env1\_sdm1 ranges from 0 to 1793 metres above sea level, but 90% of its pixels fall above 51 and below 900 metres. Its average elevation is 437 metres.

The unit is higher in cloud, temp, sumtemp, DDminus5 and precip and lower in no variables than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

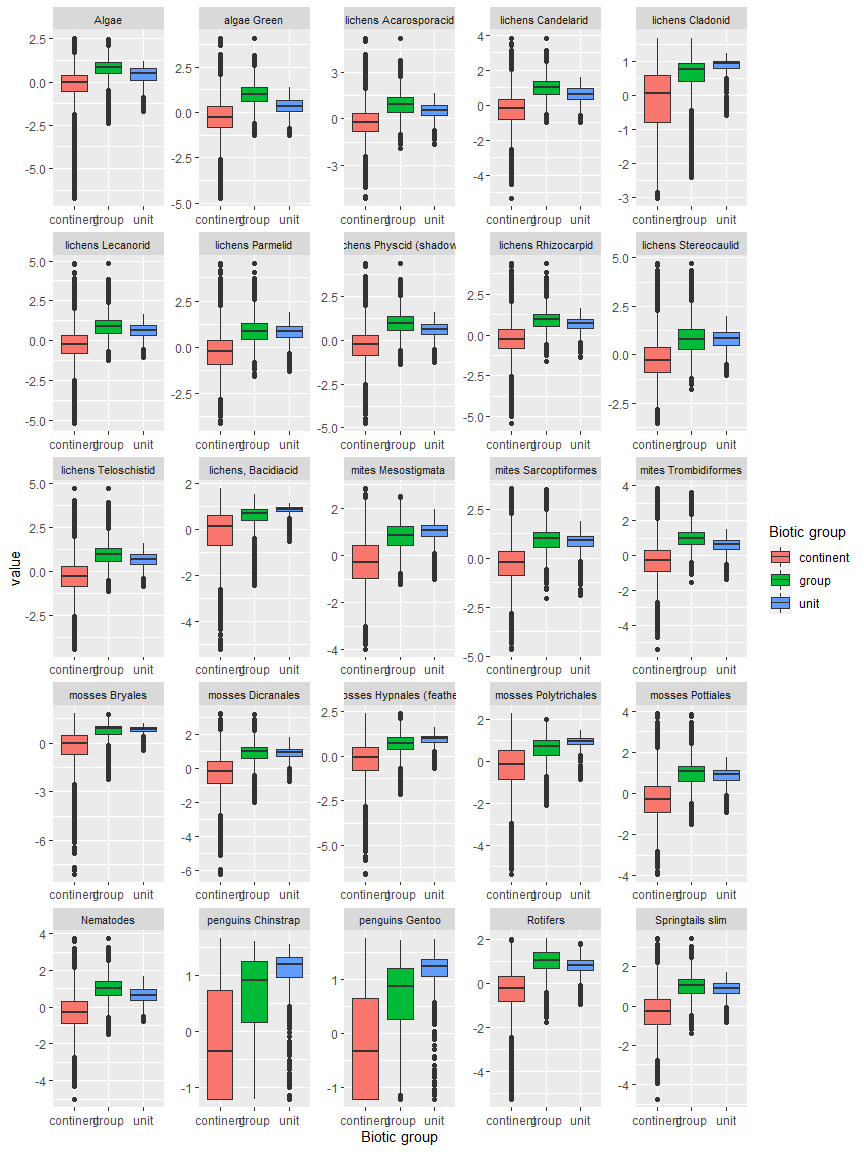
The top most widespread species in ecosystem env1\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 25 | 4.5372 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 20 | 3.6298 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 19 | 3.4483 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 13 | 2.3593 |
| Physcia caesia | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 12 | 2.1779 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 12 | 2.1779 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 10 | 1.8149 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 10 | 1.8149 |
| Schistidium antarctici | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 10 | 1.8149 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 8 | 1.4519 |
| Pygoscelis adeliae | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_adeliae | Chordata | FALSE | 8 | 1.4519 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 8 | 1.4519 |

This supergroup is, on average, substantially higher in suitability for Rotifers, Springtails\_slim, Nematodes, mosses\_Pottiales, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Candelarid, mites\_Sarcoptiformes, algae\_Green, mosses\_Dicranales, lichens\_Lecanorid, lichens\_Parmelid, lichens\_Rhizocarpid, mites\_Mesostigmata, lichens\_Acarosporacid, lichens\_Stereocaulid, Algae, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,\_Bacidiacid functional groups than continental antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env1\_sdm1 is higher in suitability for penguins\_Gentoo, penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,*Bacidiacid and lower in suitability for lichens\_Teloschistid, Nematodes, lichens\_Physcid*(shadow), lichens\_Candelarid, lichens\_Acarosporacid, mites\_Trombidiformes, Algae and algae\_Green than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env1\_sdm2, Dry coastal lichen fields

Env1\_sdm2, Dry coastal lichen fields. Primarily occurs on flat, rocky terrain or low outcrops on cold, dry and windy coastlines, commonly (but not exclusively) adjacent to ice shelves. Characteristic biota includes several tardigrade, rotifer and arthopods taxa recorded primarily from this unit. Nutrient fluxes potentially influenced by Emperor penguin colonies on adjacent ice sheets.

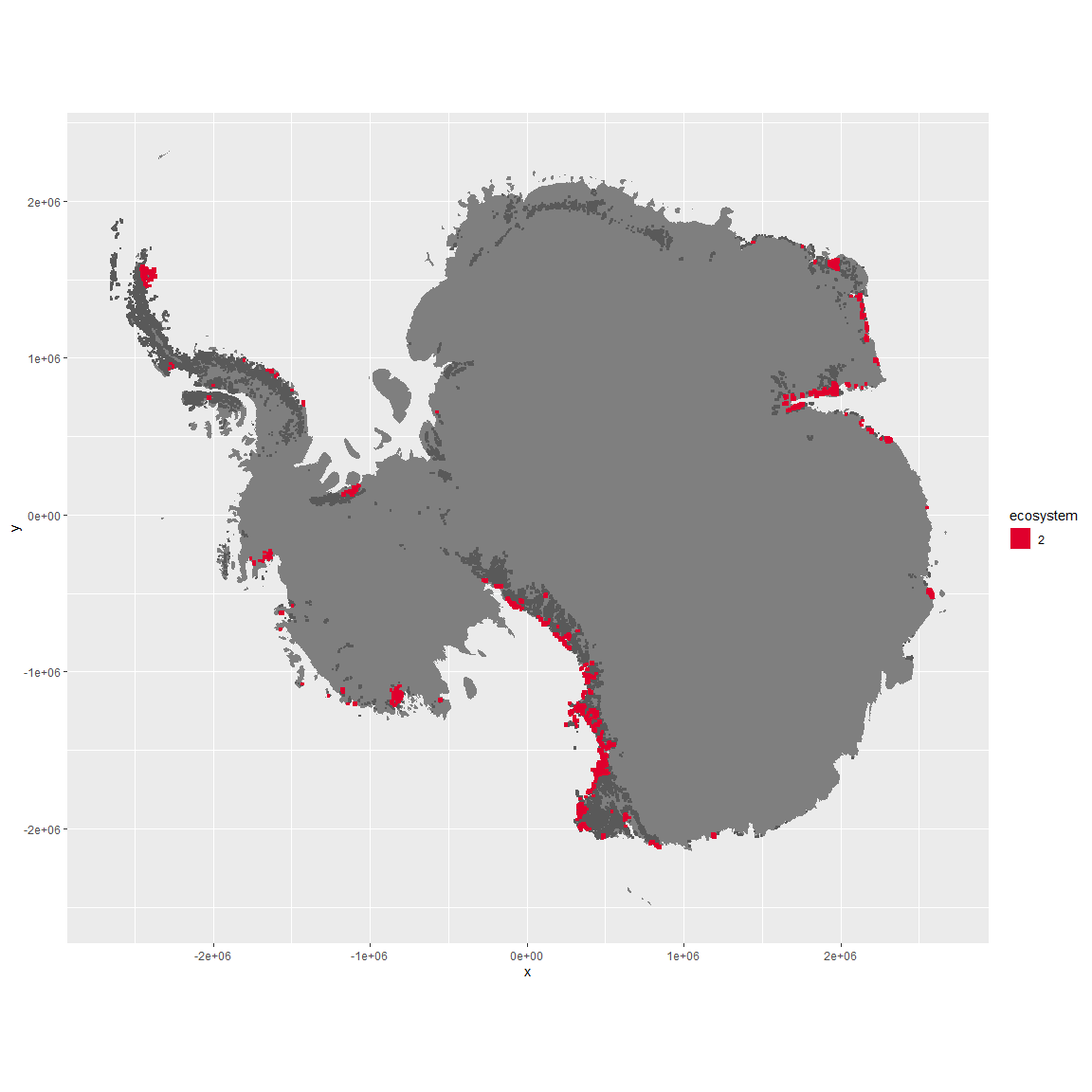
### Photos (if available)



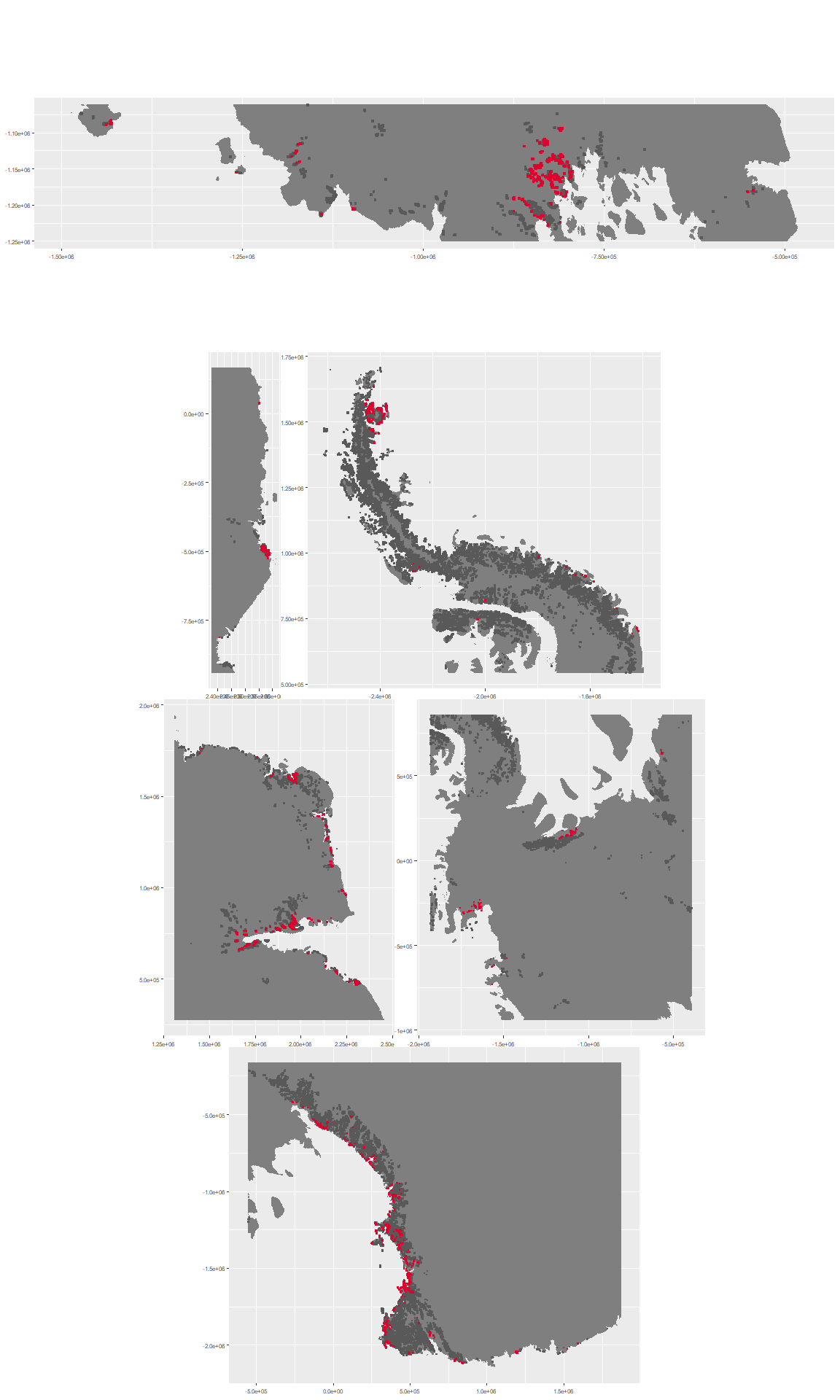
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

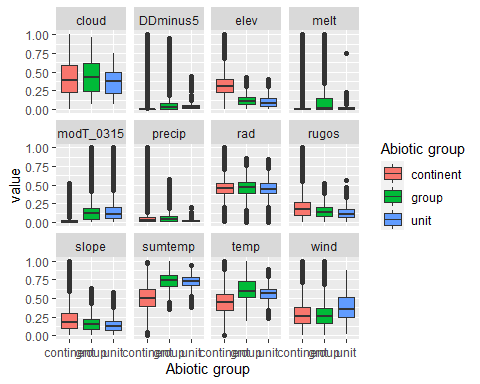
The unit env1\_sdm2 is part of the environmental supergroup env1.

This supergroup is, on average, substantially higher in sumtemp, temp, modT\_0315 and melt than continental antarctica. It is substantially lower in slope, rugos and elev than the rest of the continent.

The elevation of unit env1\_sdm2 ranges from 0 to 1939 metres above sea level, but 90% of its pixels fall above 4 and below 949 metres. Its average elevation is 361 metres.

The unit is higher in wind and lower in temp, cloud and melt than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

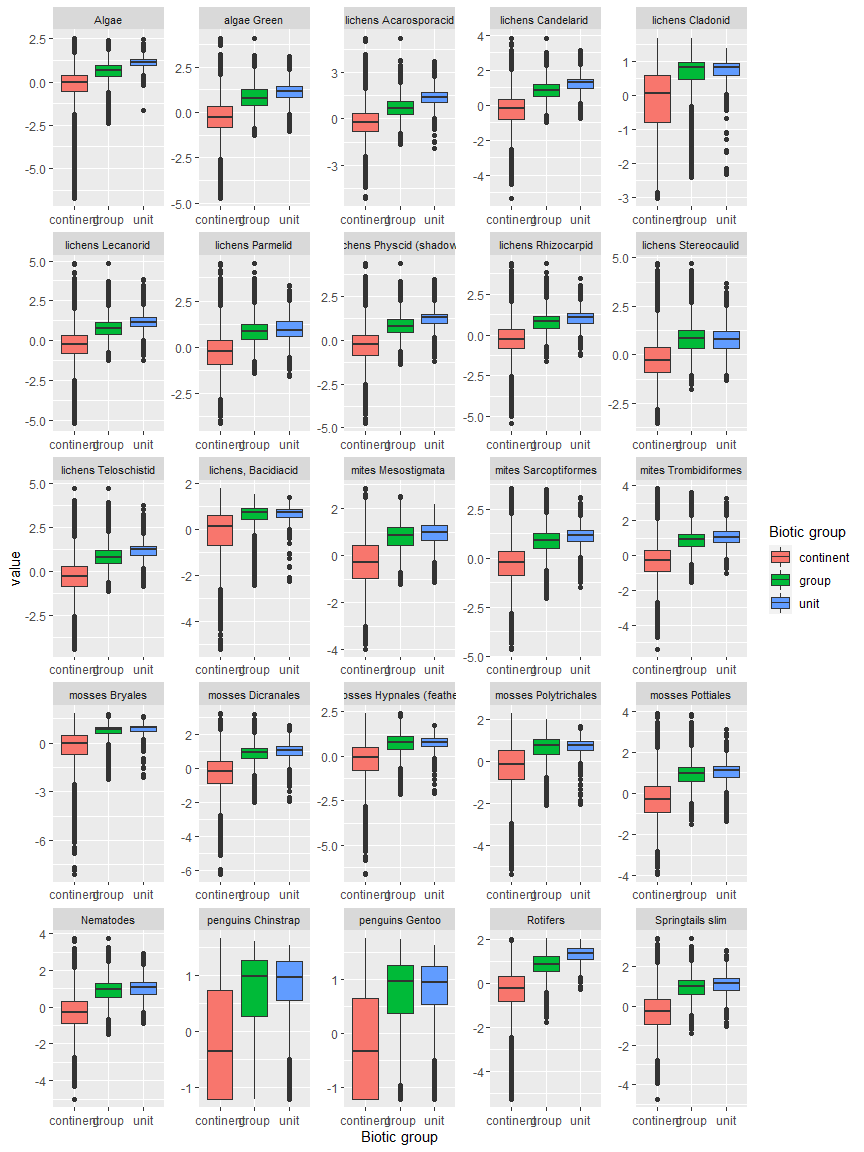
The top most widespread species in ecosystem env1\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 78 | 2.7445 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 72 | 2.5334 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 61 | 2.1464 |
| Lecanora expectans | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 52 | 1.8297 |
| Umbilicaria aprina | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 52 | 1.8297 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 52 | 1.8297 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 50 | 1.7593 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 50 | 1.7593 |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 49 | 1.7241 |
| Caloplaca citrina | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 46 | 1.6186 |

This supergroup is, on average, substantially higher in suitability for Rotifers, Springtails\_slim, Nematodes, mosses\_Pottiales, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Candelarid, mites\_Sarcoptiformes, algae\_Green, mosses\_Dicranales, lichens\_Lecanorid, lichens\_Parmelid, lichens\_Rhizocarpid, mites\_Mesostigmata, lichens\_Acarosporacid, lichens\_Stereocaulid, Algae, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,\_Bacidiacid functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env1\_sdm2 is higher in suitability for lichens\_Acarosporacid, Algae, Rotifers, lichens\_Physcid\_(shadow), lichens\_Lecanorid, lichens\_Candelarid and lichens\_Teloschistid and lower in suitability for no variables than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env1\_sdm3 Mesic coastal lowlands

Env1\_sdm3 Mesic coastal lowlands. Rocky lowlands in warm, cloudy mesic areas support a biota dominated mainly by lichens, mosses and seabirds. Colonies of penguins on the lower slopes and nesting seabirds influence moss beds upslope enriched by nutrients via updrafts. Grasses occur occasionally within this system at low elevations on the Antarctic Peninsula and associated islands, but not in other areas. The microbiota is likely to exhibit strong regional variation within this unit around the continent.

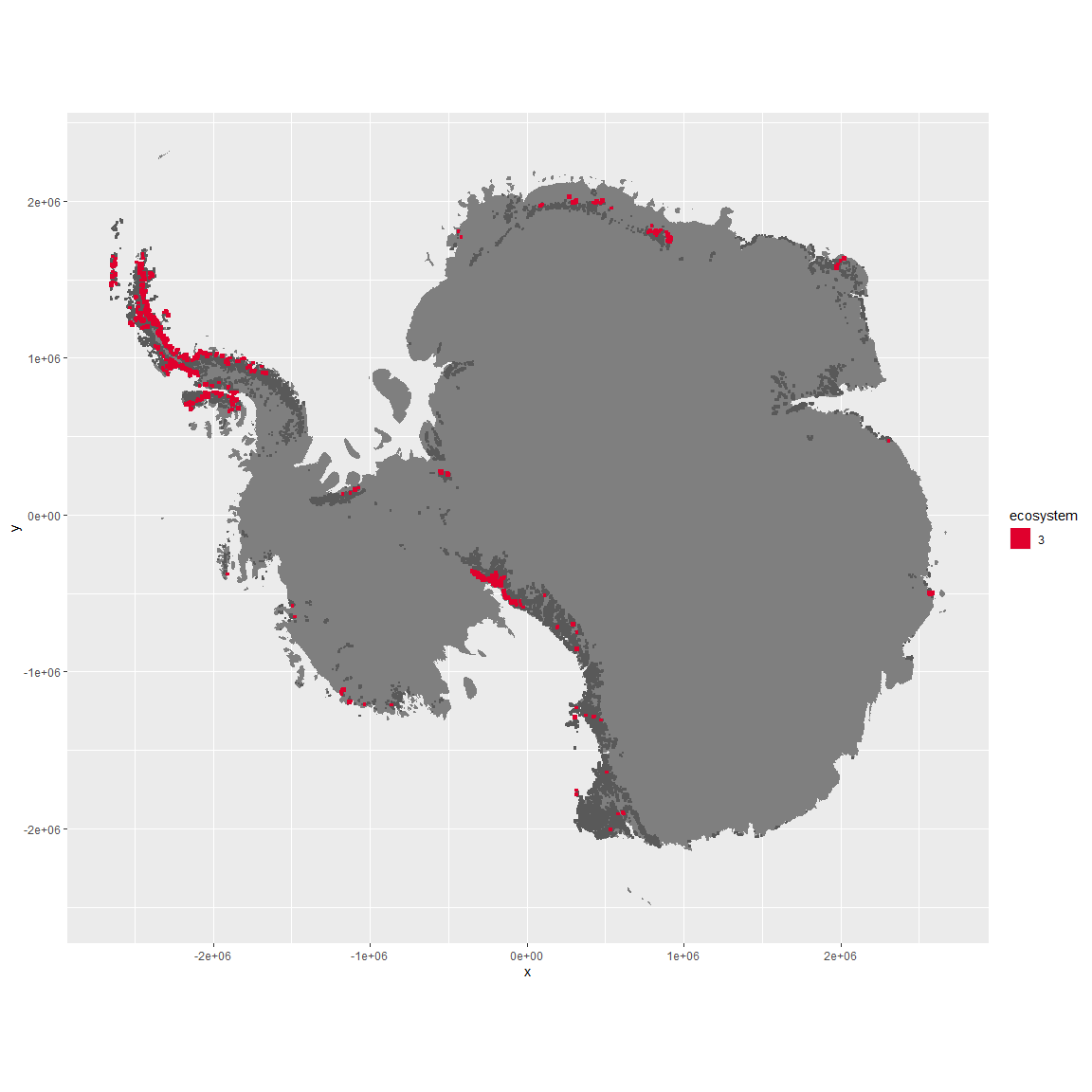
### Photos (if available)



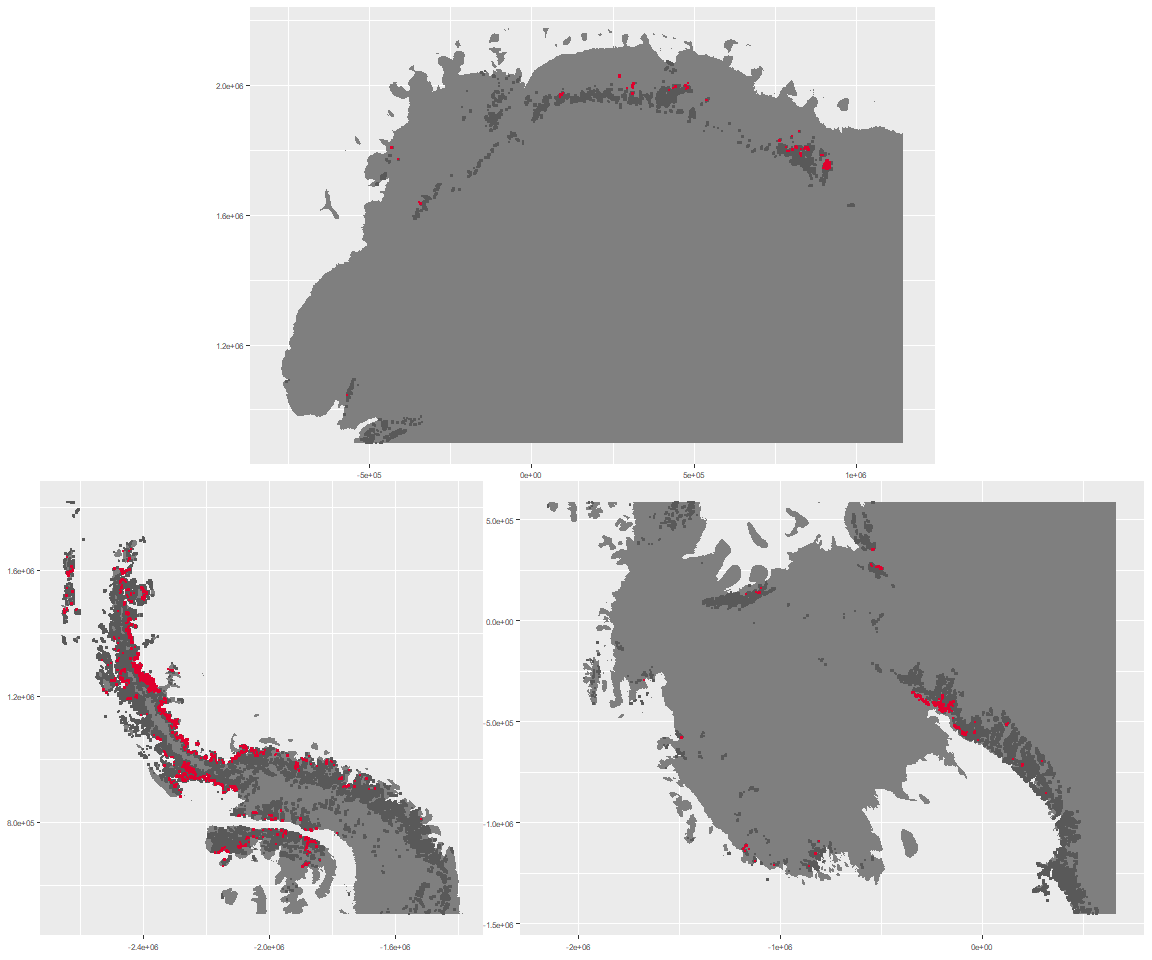
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

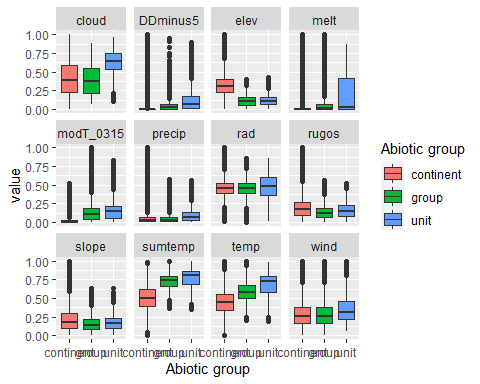
The unit env1\_sdm3 is part of the environmental supergroup env1.

This supergroup is, on average, substantially higher in sumtemp, temp, modT\_0315 and melt than continental antarctica. It is substantially lower in slope, rugos and elev than the rest of the continent.

The elevation of unit env1\_sdm3 ranges from 0 to 1984 metres above sea level, but 90% of its pixels fall above 18 and below 1107 metres. Its average elevation is 466 metres.

The unit is higher in cloud, melt, temp, wind, DDminus5, precip and sumtemp and lower in no variables than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

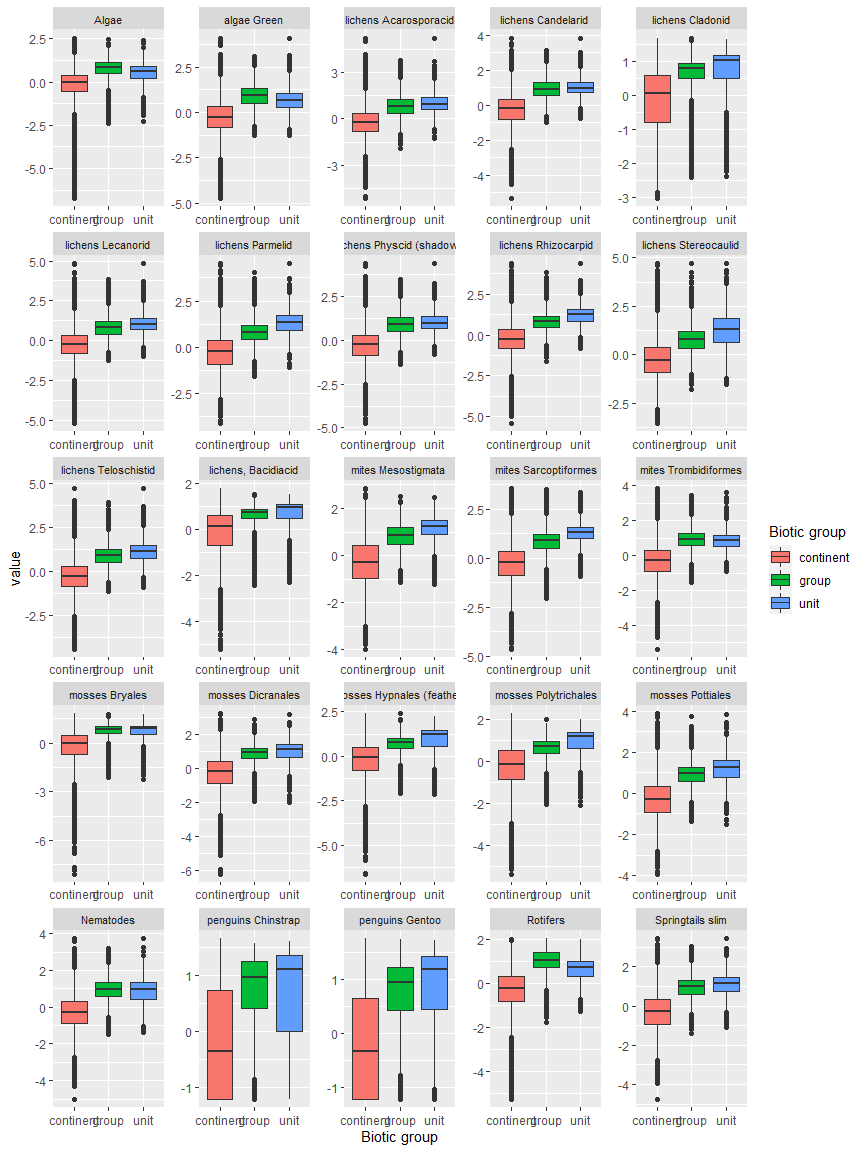
The top most widespread species in ecosystem env1\_sdm3

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Polytrichastrum alpinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 21 | 1.1925 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 21 | 1.1925 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 20 | 1.1357 |
| Andreaea gainii | Bryophyta\_Andreaeopsida\_Andreaeales\_\_\_ | Bryophyta | TRUE | 19 | 1.0789 |
| Cryptopygus antarcticus | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 19 | 1.0789 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 19 | 1.0789 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 18 | 1.0221 |
| Pygoscelis adeliae | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_adeliae | Chordata | FALSE | 18 | 1.0221 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 16 | 0.9086 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 16 | 0.9086 |

This supergroup is, on average, substantially higher in suitability for Rotifers, Springtails\_slim, Nematodes, mosses\_Pottiales, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Candelarid, mites\_Sarcoptiformes, algae\_Green, mosses\_Dicranales, lichens\_Lecanorid, lichens\_Parmelid, lichens\_Rhizocarpid, mites\_Mesostigmata, lichens\_Acarosporacid, lichens\_Stereocaulid, Algae, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,\_Bacidiacid functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env1\_sdm3 is higher in suitability for lichens\_Parmelid, lichens\_Stereocaulid, lichens\_Rhizocarpid, mites\_Sarcoptiformes, mites\_Mesostigmata and mosses\_Polytrichales and lower in suitability for Rotifers than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env1\_sdm4 Xeric valley floors

Env1\_sdm4 Xeric valley floors. Flat or rolling valley bottoms typically carved by antecedent glaciers and surrounded by valley sides and high peaks. The valleys may extend many kilometres inland and are relatively sheltered from the wind and extremely dry, but often contains lakes maintained by meltwater streams. Some incidence of this unit also seen between the edge of existing glaciers and steep mountain slopes. These systems are colder than the rest of the lowlands, but still warmer than the continental average. The vegetation is sparse due to extremely dry conditions, which are largely unsuitable for mosses, and instead characterised by algae, Stereocaulid lichens with nematodes and trombidiformid mites, rotifers and springtails.

### Photos (if available)



Ecosystem photo



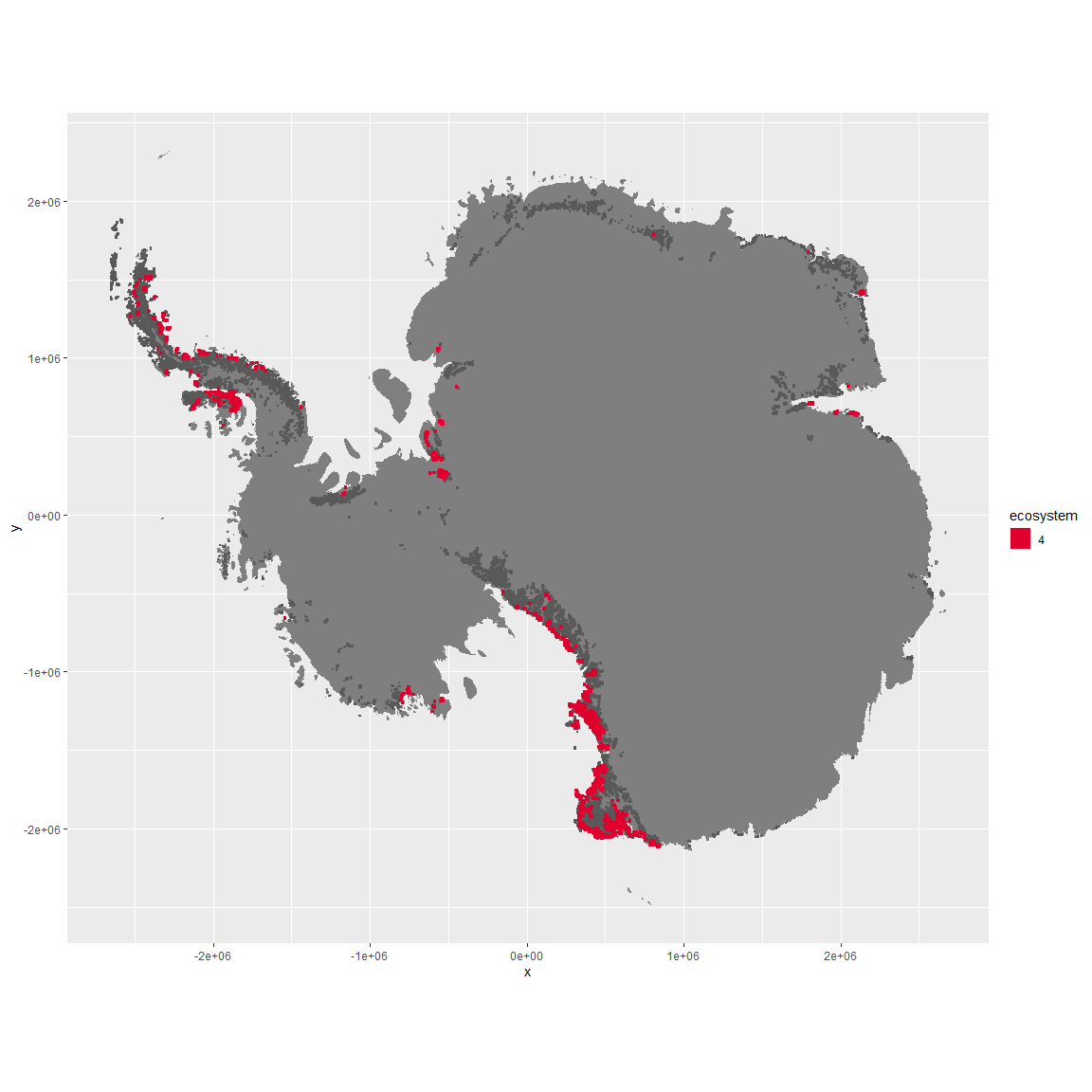
Ecosystem photo



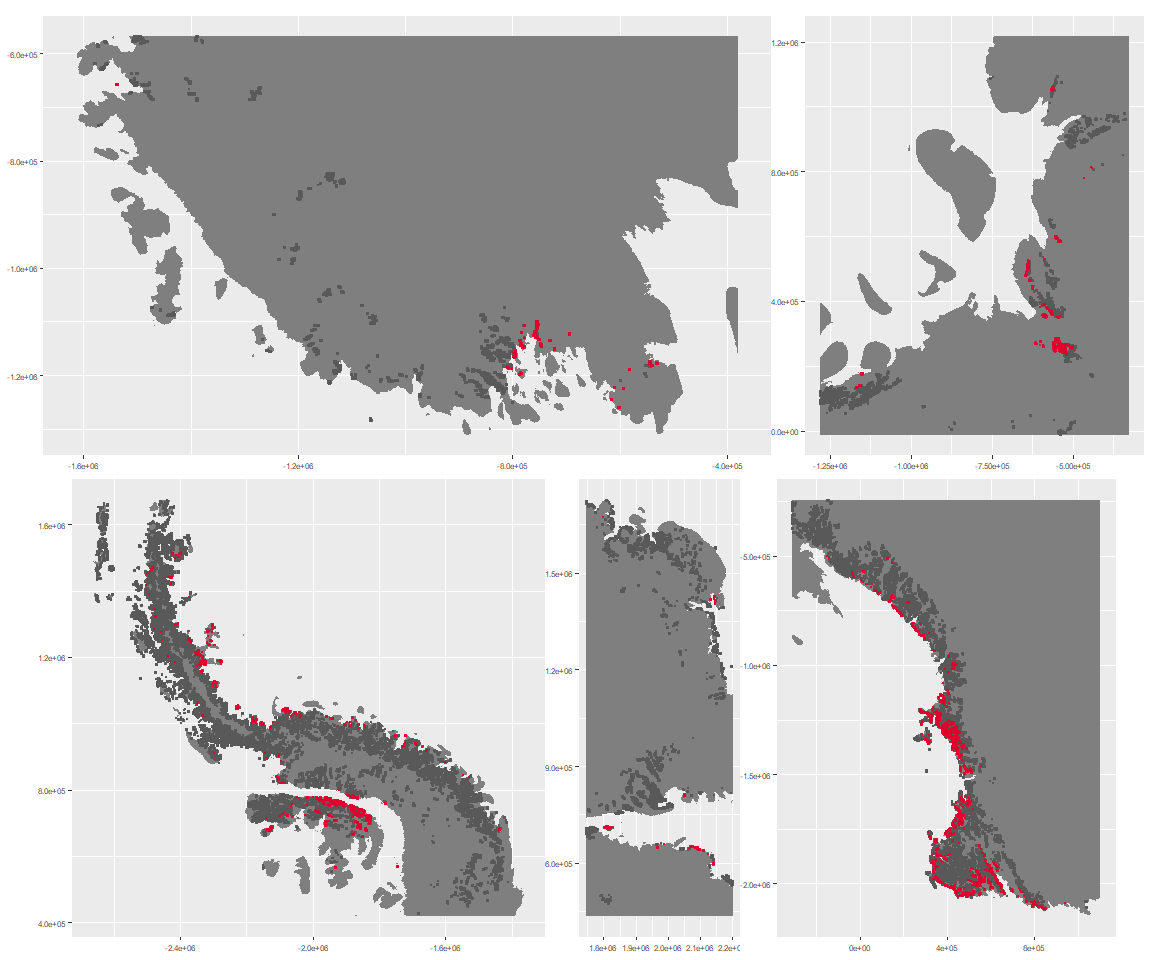
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

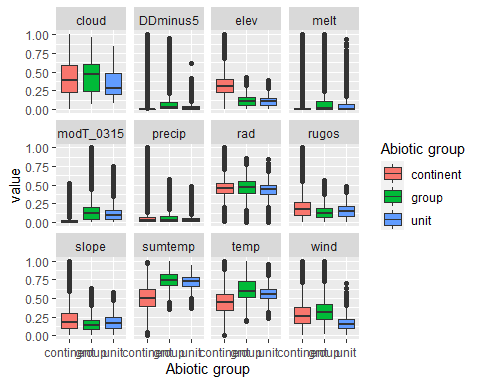
The unit env1\_sdm4 is part of the environmental supergroup env1.

This supergroup is, on average, substantially higher in sumtemp, temp, modT\_0315 and melt than continental antarctica. It is substantially lower in slope, rugos and elev than the rest of the continent.

The elevation of unit env1\_sdm4 ranges from 0 to 1903 metres above sea level, but 90% of its pixels fall above 53 and below 1016 metres. Its average elevation is 496 metres.

The unit is higher in no variables and lower in DDminus5, temp, cloud and wind than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

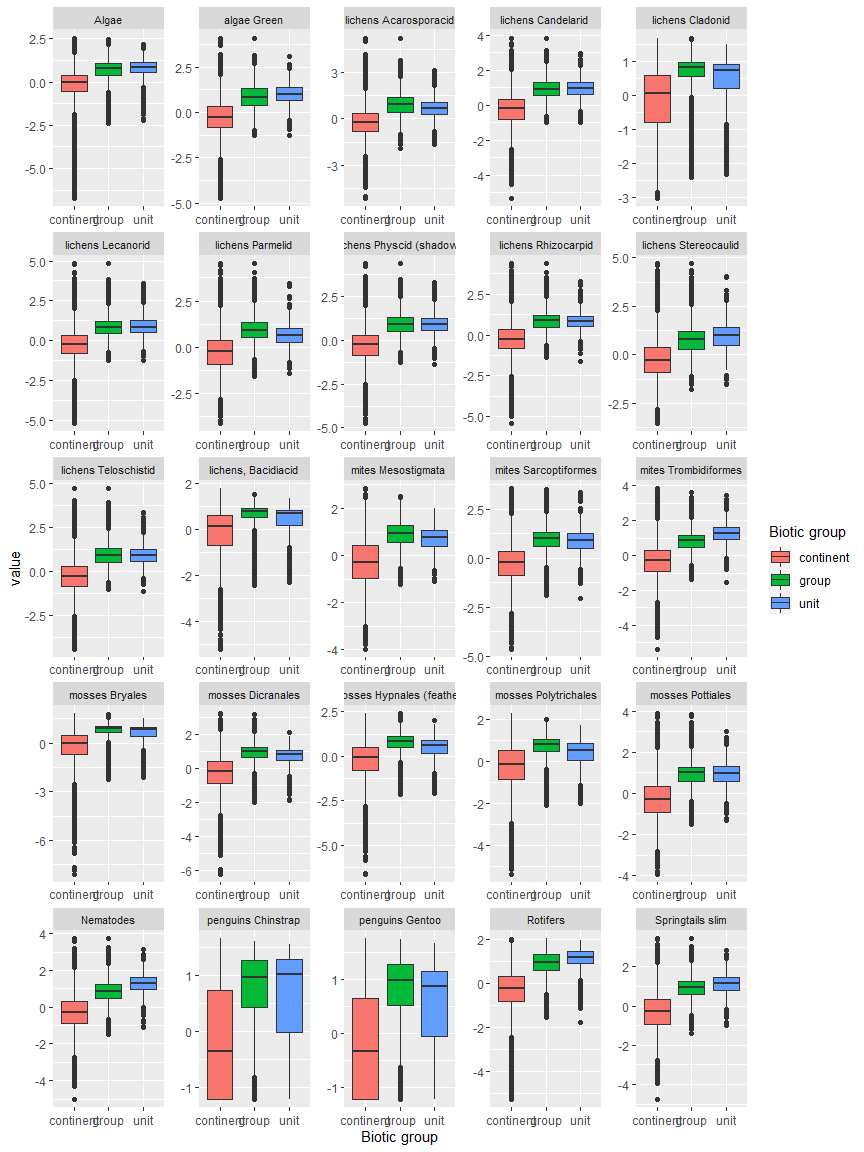
The top most widespread species in ecosystem env1\_sdm4

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 50 | 3.2362 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 38 | 2.4595 |
| Scottnema lindsayae | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 37 | 2.3948 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 33 | 2.1359 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 27 | 1.7476 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 26 | 1.6828 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 24 | 1.5534 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 23 | 1.4887 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 23 | 1.4887 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 21 | 1.3592 |

This supergroup is, on average, substantially higher in suitability for Rotifers, Springtails\_slim, Nematodes, mosses\_Pottiales, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Candelarid, mites\_Sarcoptiformes, algae\_Green, mosses\_Dicranales, lichens\_Lecanorid, lichens\_Parmelid, lichens\_Rhizocarpid, mites\_Mesostigmata, lichens\_Acarosporacid, lichens\_Stereocaulid, Algae, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,\_Bacidiacid functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env1\_sdm4 is higher in suitability for Nematodes and mites\_Trombidiformes and lower in suitability for mosses\_Polytrichales than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



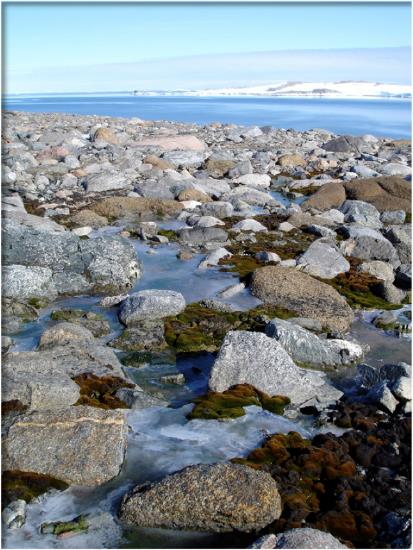
Ecosystem Description

Aniko B. Toth

## Ecosystem Env1\_sdm5 Subcoastal mossy rises

Env1\_sdm5 Subcoastal mossy rises [cf. terraces/ridges]. These moss-dominated ecosystems occupy low-relief rocky outcrops, usually in the subcoastal hinterlands, extending to higher elevations than other coastal ice-free terrestrial ecosystems, although some are quite close to the coastline. Conditions are sufficiently warm and sunny to promote moss growth, but somewhat cooler and windier than other coastal systems in Group 1. Several processes are likely to enhance habitat suitability for mosses by promoting nutrient enrichment. Many occurrences co-incide with abandoned penguin colonies that were active earlier in the Holocene when sea levels were higher than at present. Toxic nitrogen levels associated with active colonies have since been leached, while residual levels of N and other nutrients promote moss growth. Alternatively, more elevated sites receive nutirent influxes from nesting seabirds or aerosol inputs via updrafts from extant penguin colonies below. While mosses are conspicuous features of these systems, lichens and some nematodes are also widespread, and several cyanobacteria species are characteristic of occurrences in different regions of the continent.

### Photos (if available)



Ecosystem photo



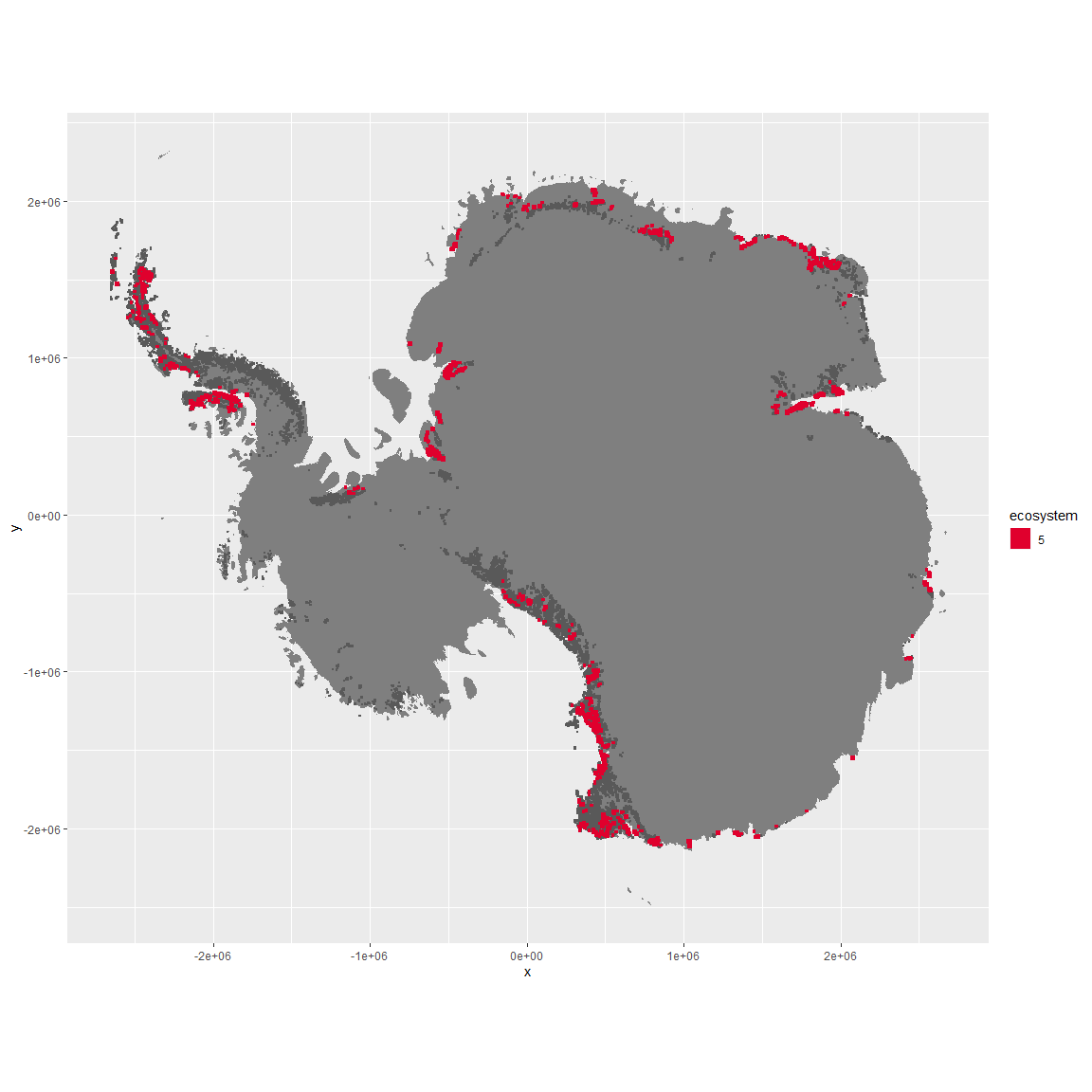
Ecosystem photo



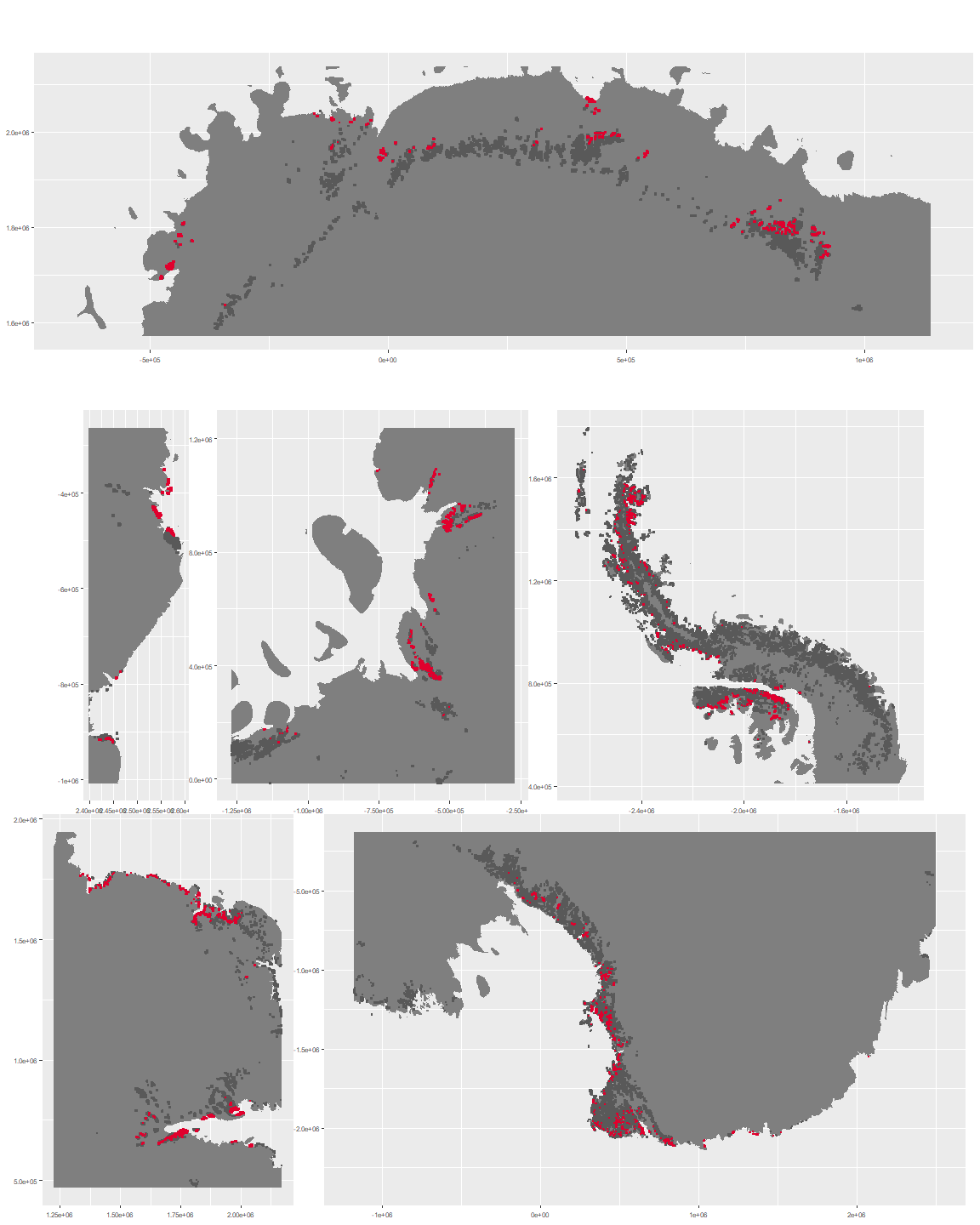
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

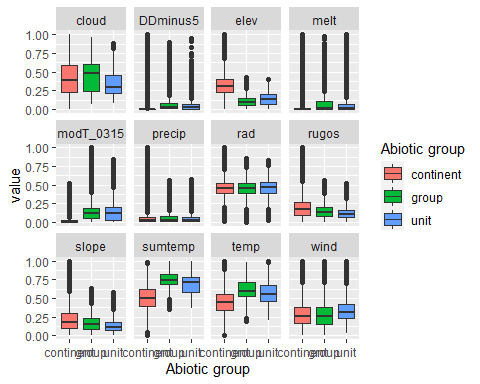
The unit env1\_sdm5 is part of the environmental supergroup env1.

This supergroup is, on average, substantially higher in sumtemp, temp, modT\_0315 and melt than continental antarctica. It is substantially lower in slope, rugos and elev than the rest of the continent.

The elevation of unit env1\_sdm5 ranges from 0 to 1836 metres above sea level, but 90% of its pixels fall above 20 and below 1364 metres. Its average elevation is 616 metres.

The unit is higher in wind and lower in sumtemp and cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

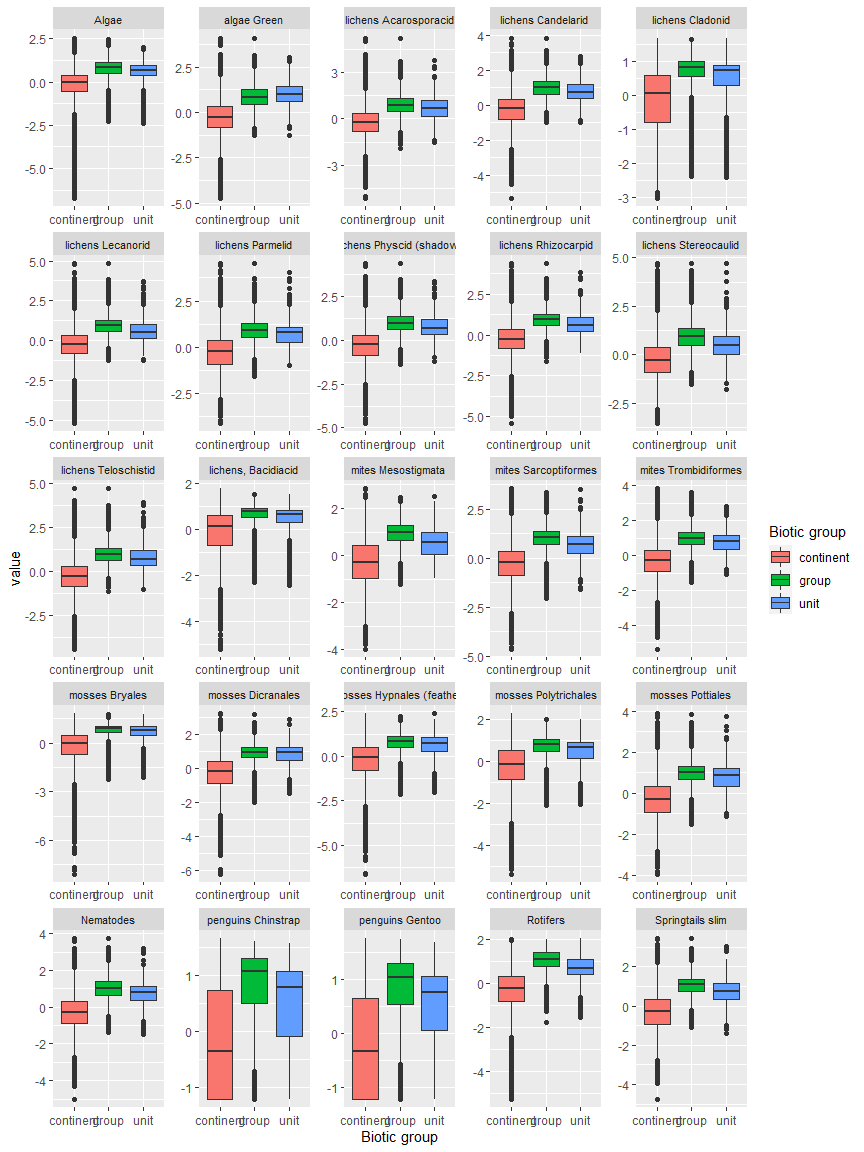
The top most widespread species in ecosystem env1\_sdm5

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 55 | 2.5253 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 47 | 2.1579 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 39 | 1.7906 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 36 | 1.6529 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 32 | 1.4692 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 31 | 1.4233 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 27 | 1.2397 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 24 | 1.1019 |
| Bryum argenteum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 23 | 1.0560 |
| Pottia heimii | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 23 | 1.0560 |

This supergroup is, on average, substantially higher in suitability for Rotifers, Springtails\_slim, Nematodes, mosses\_Pottiales, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Candelarid, mites\_Sarcoptiformes, algae\_Green, mosses\_Dicranales, lichens\_Lecanorid, lichens\_Parmelid, lichens\_Rhizocarpid, mites\_Mesostigmata, lichens\_Acarosporacid, lichens\_Stereocaulid, Algae, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, lichens\_Cladonid and lichens,\_Bacidiacid functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env1\_sdm5 is higher in suitability for no variables and lower in suitability for penguins\_Gentoo, penguins\_Chinstrap, Springtails\_slim, mites\_Sarcoptiformes, lichens\_Lecanorid, mites\_Mesostigmata and lichens\_Stereocaulid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

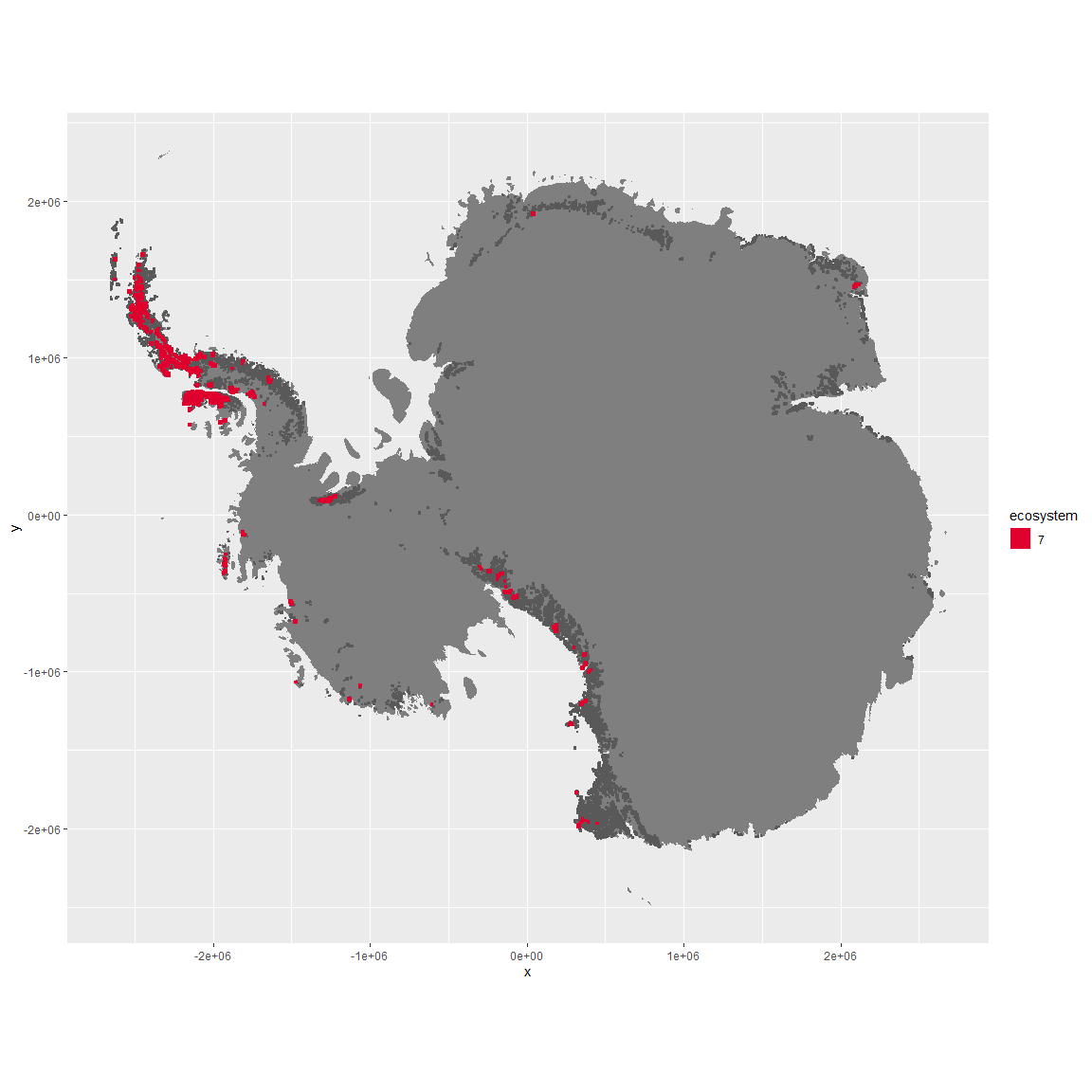
## Ecosystem Env2\_sdm1 Meltwater-fed low coastal mountains

Env2\_sdm1 Meltwater-fed low coastal mountains. Occurs mainly in the rugged areas of Alexander and Adelaide Islands and on the coastal peninsula with some outliers elsewhere. Maritime influence makes these systems warmer and wetter than others within the Env2 group, and they also have greater relief and higher exposure to meltwater at lower elevations. Sampled biota includes mainly common lichen and moss species, but this system also has unusually high suitability for mosses of Hypnales and Polytrichales, lichens of Bacidiaceae and Cladoniaceae, and adjacent to the coast, penguins.

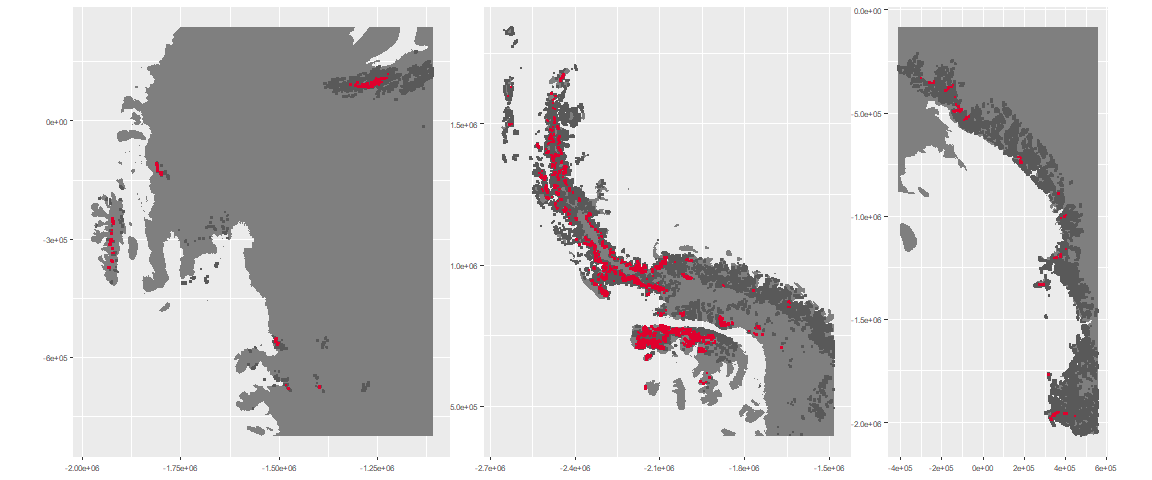
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

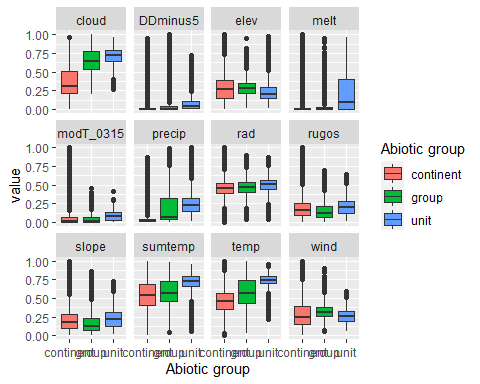
The unit env2\_sdm1 is part of the environmental supergroup env2.

This supergroup is, on average, substantially higher in cloud, precip, temp and sumtemp than continental antarctica. It is substantially lower in no variables than the rest of the continent.

The elevation of unit env2\_sdm1 ranges from 0 to 4955 metres above sea level, but 90% of its pixels fall above 391 and below 2726 metres. Its average elevation is 1164 metres.

The unit is higher in melt, temp, sumtemp, cloud, precip, slope, rugos and modT\_0315 and lower in elev and wind than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

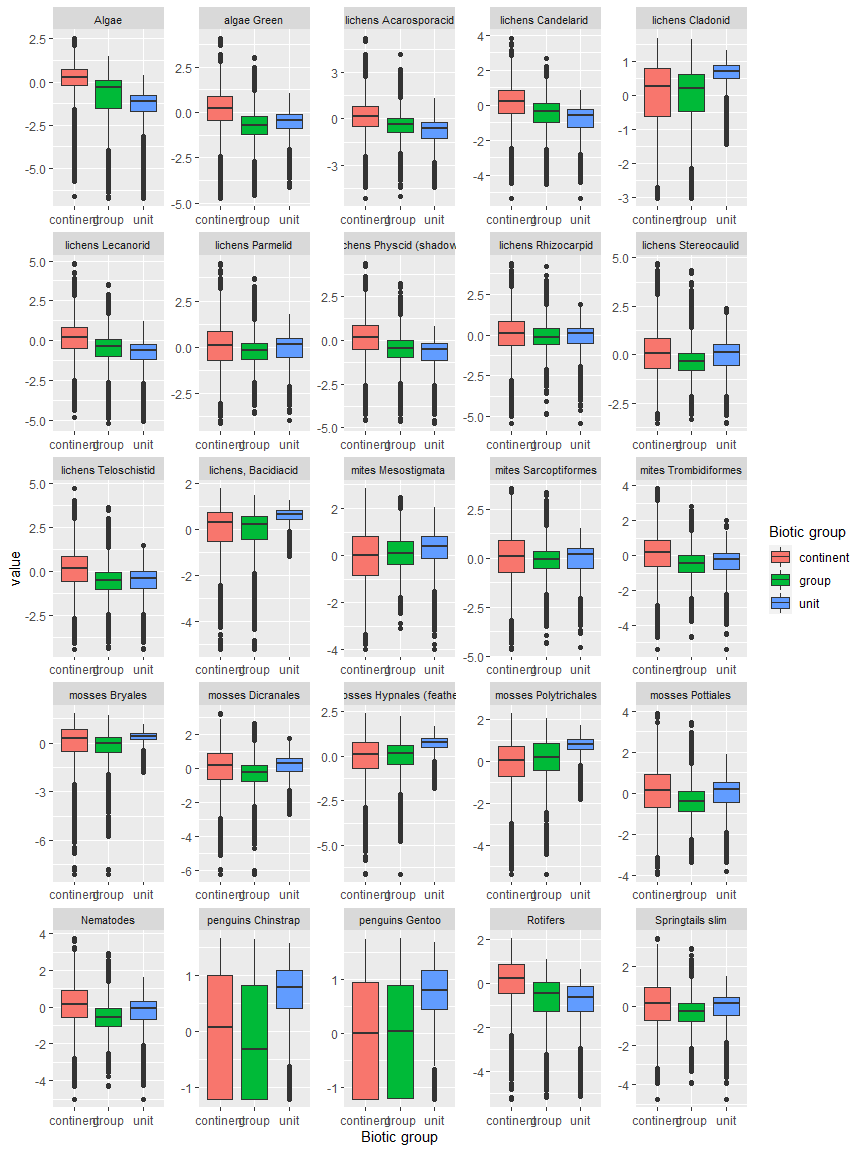
The top most widespread species in ecosystem env2\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 19 | 2.9688 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 12 | 1.8750 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 11 | 1.7188 |
| Pohlia cruda | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 10 | 1.5625 |
| Schistidium antarctici | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 9 | 1.4062 |
| Umbilicaria antarctica | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | TRUE | 9 | 1.4062 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 8 | 1.2500 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 8 | 1.2500 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 8 | 1.2500 |
| Bartramia patens | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 7 | 1.0938 |
| Cephaloziella varians | Marchantiophyta\_\_\_\_\_ | Marchantiophyta | FALSE | 7 | 1.0938 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 7 | 1.0938 |
| Grimmia reflexidens | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | FALSE | 7 | 1.0938 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 7 | 1.0938 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 7 | 1.0938 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 7 | 1.0938 |
| Usnea aurantiaco-atra | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 7 | 1.0938 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 7 | 1.0938 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for mites\_Trombidiformes, Nematodes, lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), algae\_Green, Rotifers and Algae than the rest of the continent.

Unit env2\_sdm1 is higher in suitability for penguins\_Chinstrap, lichens\_Cladonid, penguins\_Gentoo, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, mosses\_Bryales, mosses\_Dicranales and mosses\_Pottiales and lower in suitability for lichens\_Lecanorid, lichens\_Acarosporacid, lichens\_Candelarid and Algae than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

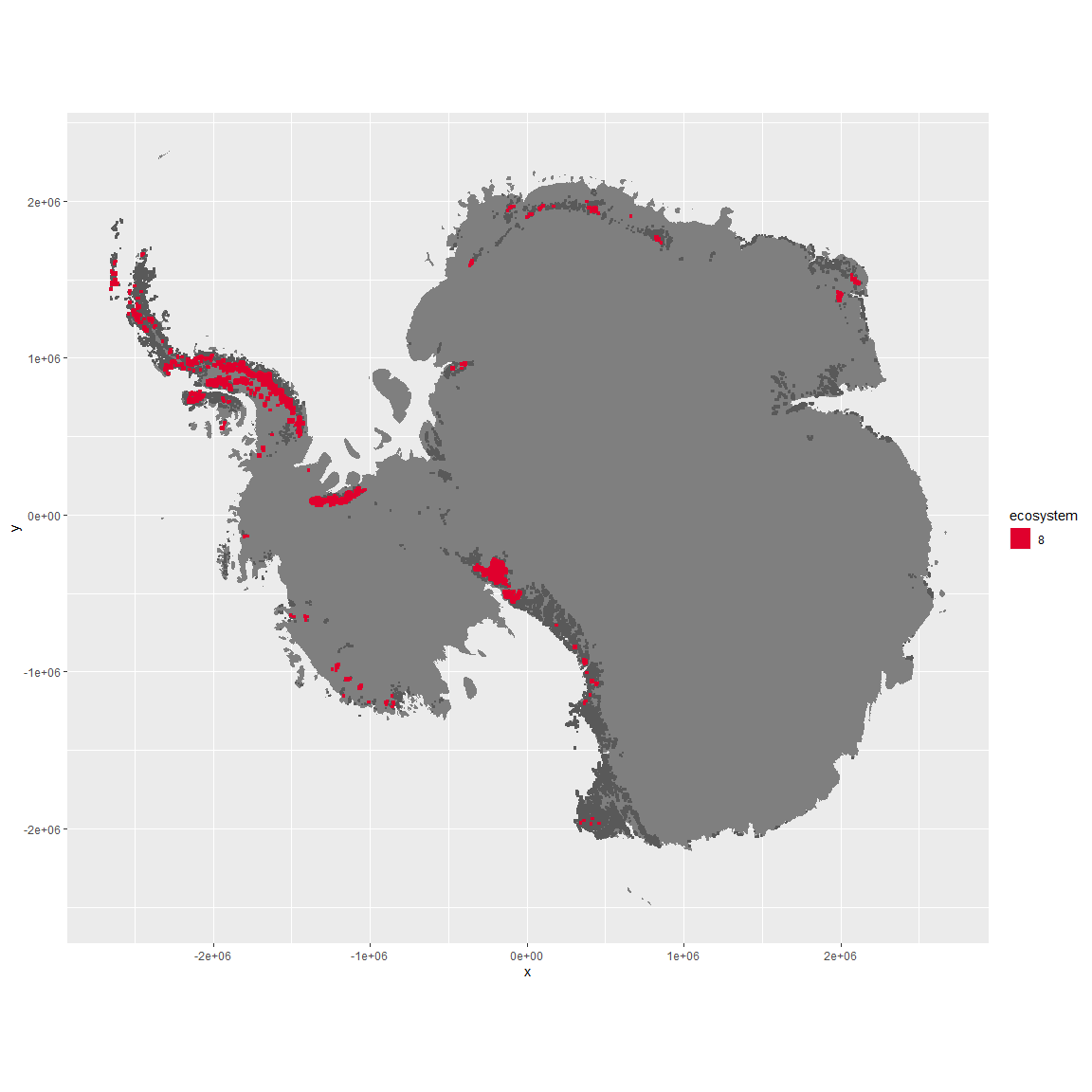
## Ecosystem Env2\_sdm2 Cool dry hill slopes

Env2\_sdm2 Cool dry hill slopes. Occurs mainly in the south Antarctic peninsula, Ellsworth mountains, and western end of the Transantarctic mountains. On the south peninsula, it occurs in association with Env5 (may be quite similar to some Env5 units). Most arid and cold unit in Env2, receiving relatively low snowfall. Unit is higher elevation than its group but not rugged, colder and drier than rest of the subgroup (melt, precip, and temp variables low). In some cases, temp and moisture variables drop below continental average. Sampled biota appear to be mainly mosses, but suitability is lower than continental average for most functional groups, particularly Ochrophytes, Nematodes, and penguins.

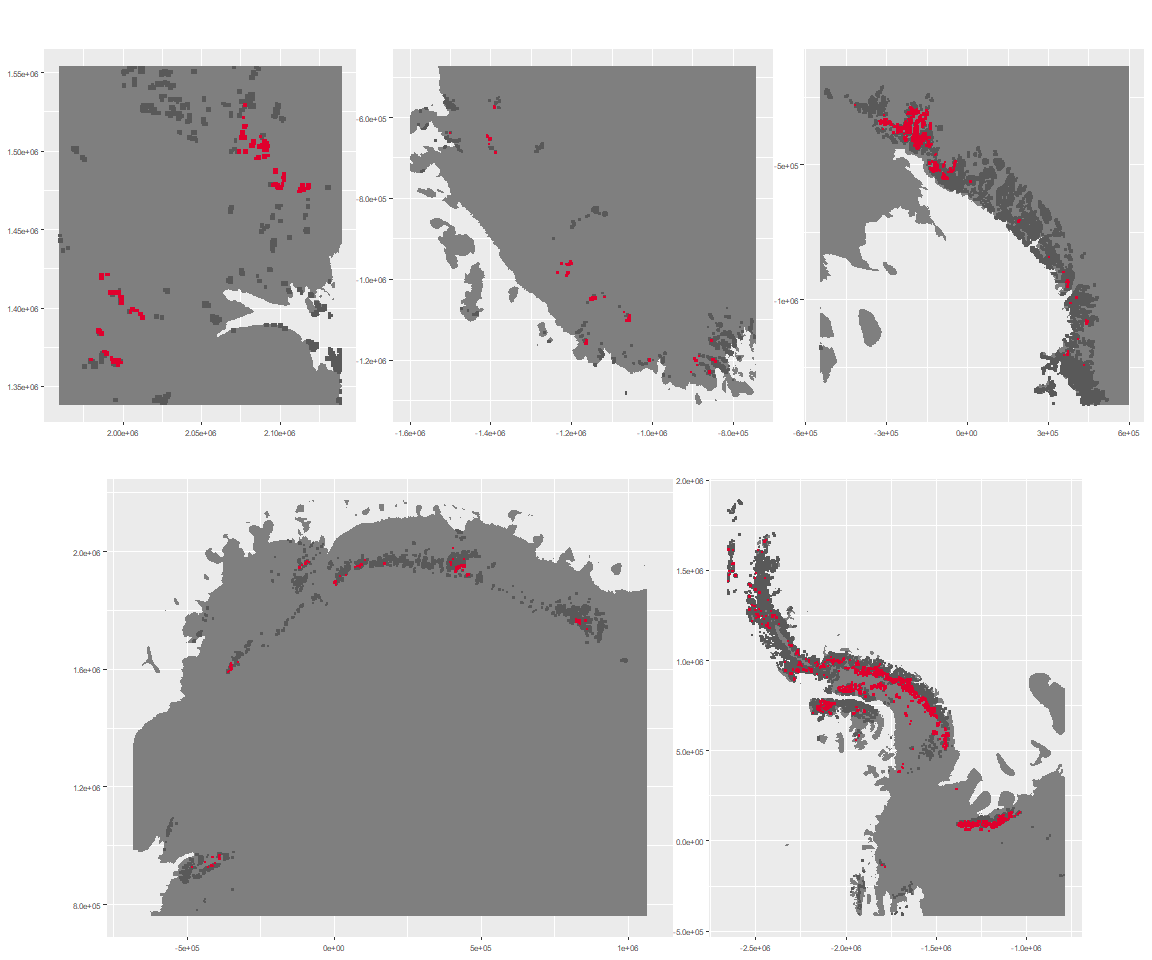
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

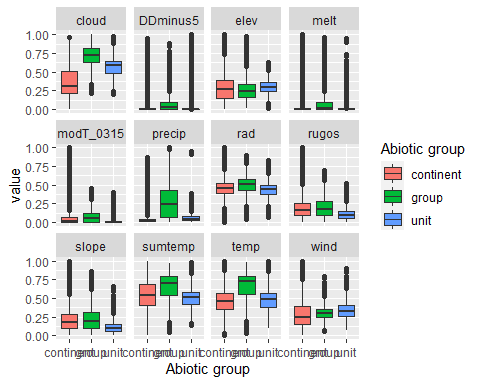
The unit env2\_sdm2 is part of the environmental supergroup env2.

This supergroup is, on average, substantially higher in cloud, precip, temp and sumtemp than continental antarctica. It is substantially lower in no variables than the rest of the continent.

The elevation of unit env2\_sdm2 ranges from 0 to 3974 metres above sea level, but 90% of its pixels fall above 623 and below 2321 metres. Its average elevation is 1468 metres.

The unit is higher in elev and lower in modT\_0315, DDminus5, rad, melt, rugos, slope, cloud, sumtemp, temp and precip than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

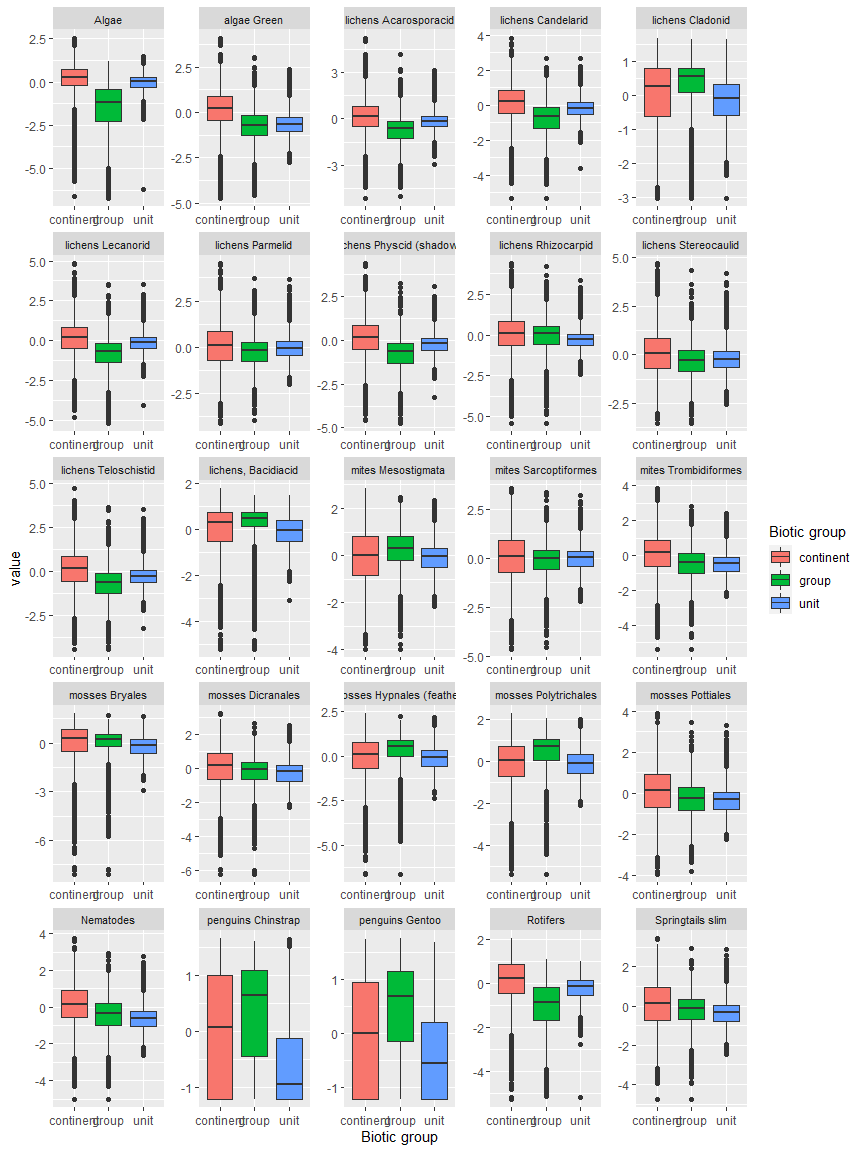
The top most widespread species in ecosystem env2\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 10 | 1.9342 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 9 | 1.7408 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 8 | 1.5474 |
| Polytrichastrum alpinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 8 | 1.5474 |
| Schistidium antarctici | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 8 | 1.5474 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 8 | 1.5474 |
| Andreaea gainii | Bryophyta\_Andreaeopsida\_Andreaeales\_\_\_ | Bryophyta | TRUE | 7 | 1.3540 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 7 | 1.3540 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 7 | 1.3540 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 7 | 1.3540 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for mites\_Trombidiformes, Nematodes, lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), algae\_Green, Rotifers and Algae than the rest of the continent.

Unit env2\_sdm2 is higher in suitability for Algae, Rotifers, lichens\_Lecanorid, lichens\_Physcid\_(shadow), lichens\_Acarosporacid, lichens\_Candelarid and lichens\_Teloschistid and lower in suitability for mites\_Mesostigmata, lichens\_Cladonid, mosses\_Hypnales\_(feather), mosses\_Polytrichales, penguins\_Gentoo and penguins\_Chinstrap than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

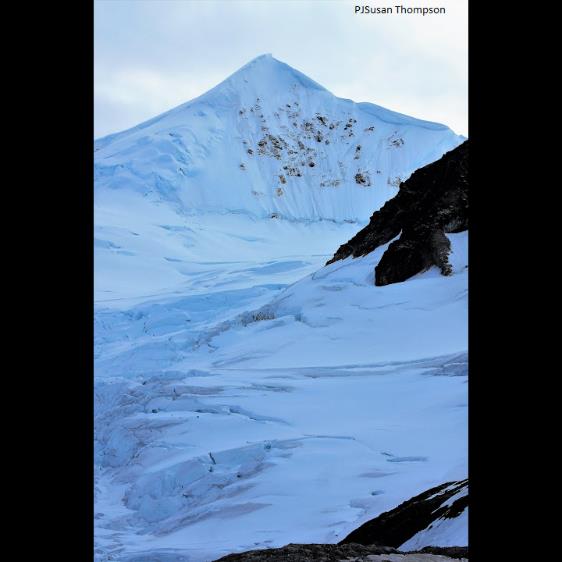
## Ecosystem Env2\_sdm3 Rugged sparsely vegetated slopes

Env2\_sdm3 Rugged sparsely vegetated slopes. These systems occur mainly on the west side of the northern Antarctic peninsula with outliers in Marie Byrd land and the Transanarctic Mountains. Maritime influence makes conditions warm with high precipitation like unit 2.1, but they are in windier locations, span a greater climatic range, have a longer growing season (degree-days above -5°C) and there is much less meltwater. The biota is characterised by lichens, mosses and mites, but these systems appear to be unsuitable for rotifers and ochrophytes.

### Photos (if available)



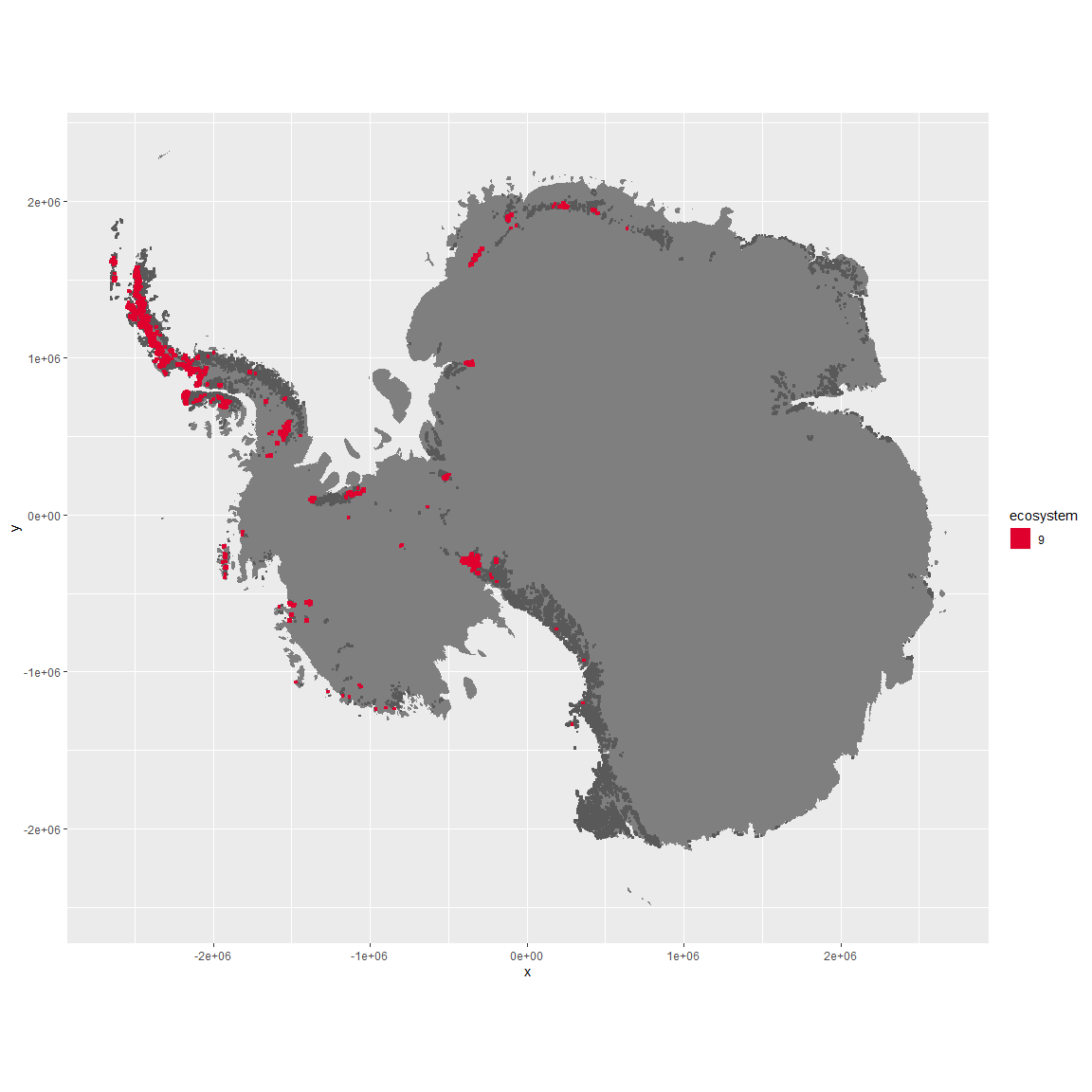
Ecosystem photo



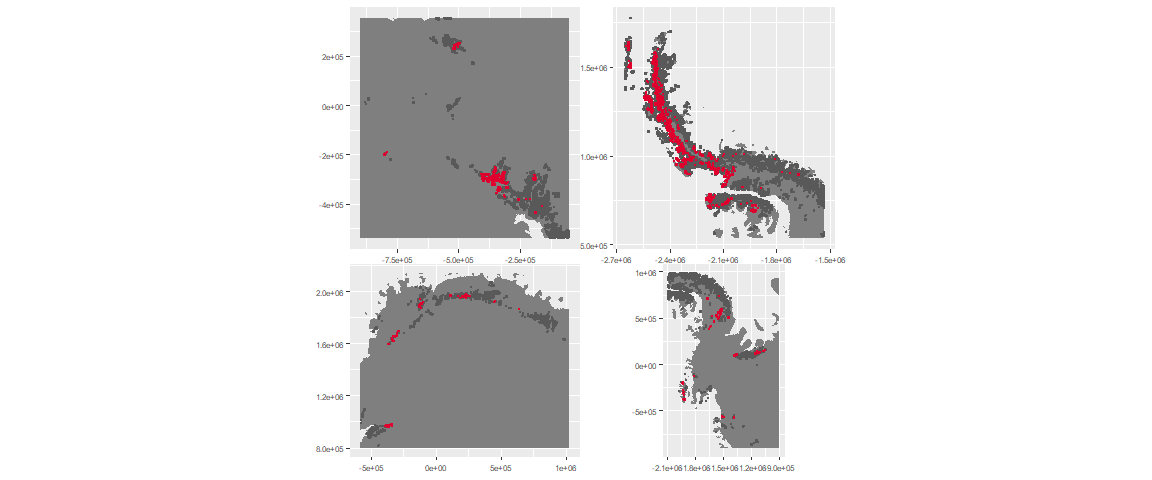
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

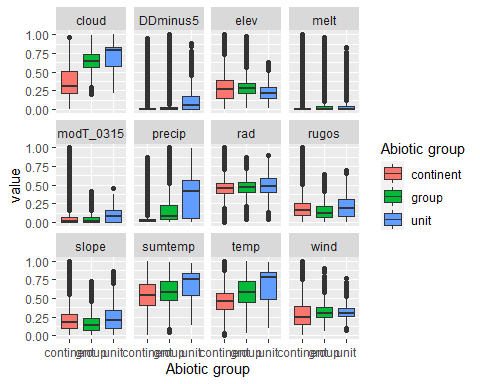
The unit env2\_sdm3 is part of the environmental supergroup env2.

This supergroup is, on average, substantially higher in cloud, precip, temp and sumtemp than continental antarctica. It is substantially lower in no variables than the rest of the continent.

The elevation of unit env2\_sdm3 ranges from 0 to 3302 metres above sea level, but 90% of its pixels fall above 223 and below 1858 metres. Its average elevation is 964 metres.

The unit is higher in precip, sumtemp, temp, DDminus5, slope, cloud, rugos and modT\_0315 and lower in elev than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

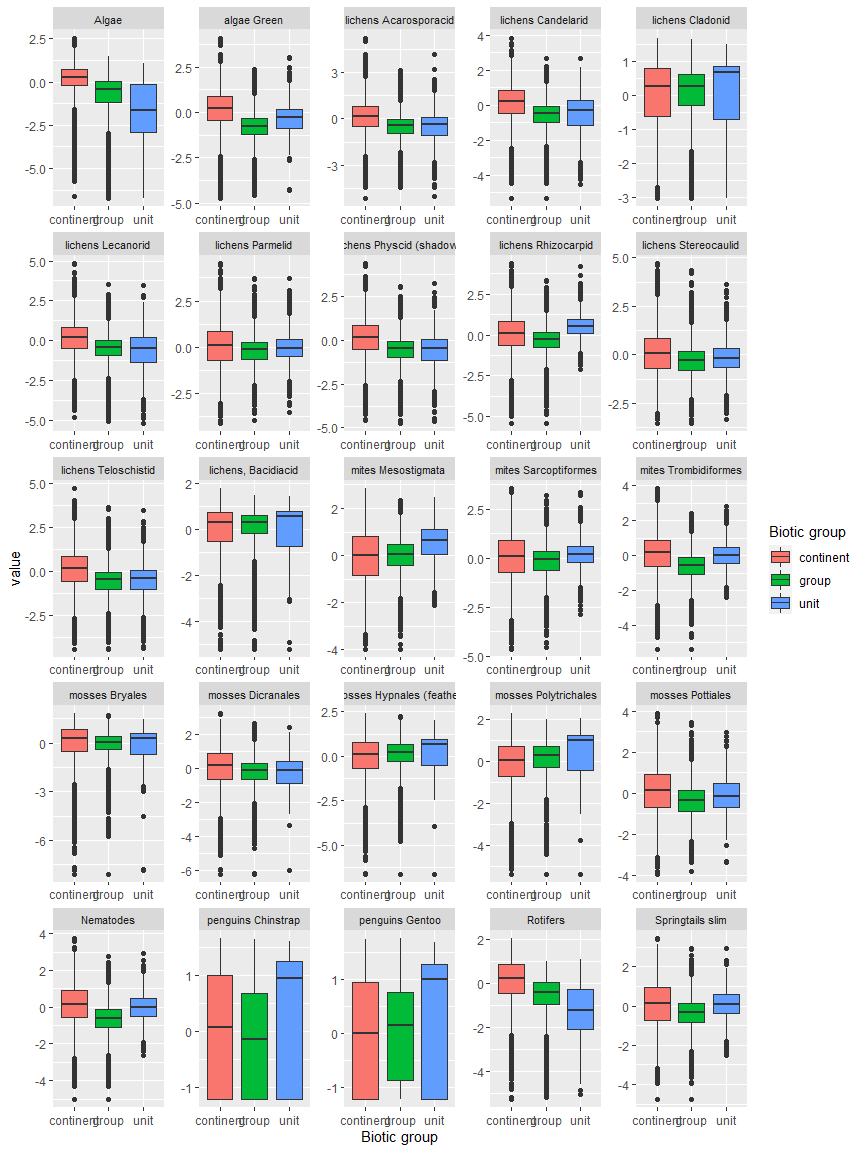
The top most widespread species in ecosystem env2\_sdm3

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Andreaea regularis | Bryophyta\_Andreaeopsida\_Andreaeales\_\_\_ | Bryophyta | TRUE | 18 | 2.5140 |
| Polytrichastrum alpinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 16 | 2.2346 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 15 | 2.0950 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 14 | 1.9553 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 13 | 1.8156 |
| Deschampsia antarctica | Tracheophyta\_\_\_\_\_ | Tracheophyta | FALSE | 12 | 1.6760 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 11 | 1.5363 |
| Pohlia cruda | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 11 | 1.5363 |
| Bartramia patens | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 10 | 1.3966 |
| Colobanthus quitensis | Tracheophyta\_\_\_\_\_ | Tracheophyta | FALSE | 10 | 1.3966 |
| Distichium capillaceum | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 10 | 1.3966 |
| Schistidium antarctici | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 10 | 1.3966 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 10 | 1.3966 |
| Usnea aurantiaco-atra | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 10 | 1.3966 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 10 | 1.3966 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for mites\_Trombidiformes, Nematodes, lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), algae\_Green, Rotifers and Algae than the rest of the continent.

Unit env2\_sdm3 is higher in suitability for lichens\_Rhizocarpid, mites\_Trombidiformes, Nematodes, penguins\_Chinstrap, mites\_Mesostigmata, algae\_Green, Springtails\_slim, penguins\_Gentoo and mites\_Sarcoptiformes and lower in suitability for Rotifers and Algae than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env2\_sdm4

Env2\_sdm4. Occurs mainly along the highest peaks set back from the coast on the peninsula. Similar to 2.2 but receive a lot more snowfall, and consequently avalanches may be more frequent. Cladonid and Bacidiacid lichens are present but conditions are largely unsuitable for most other groups.

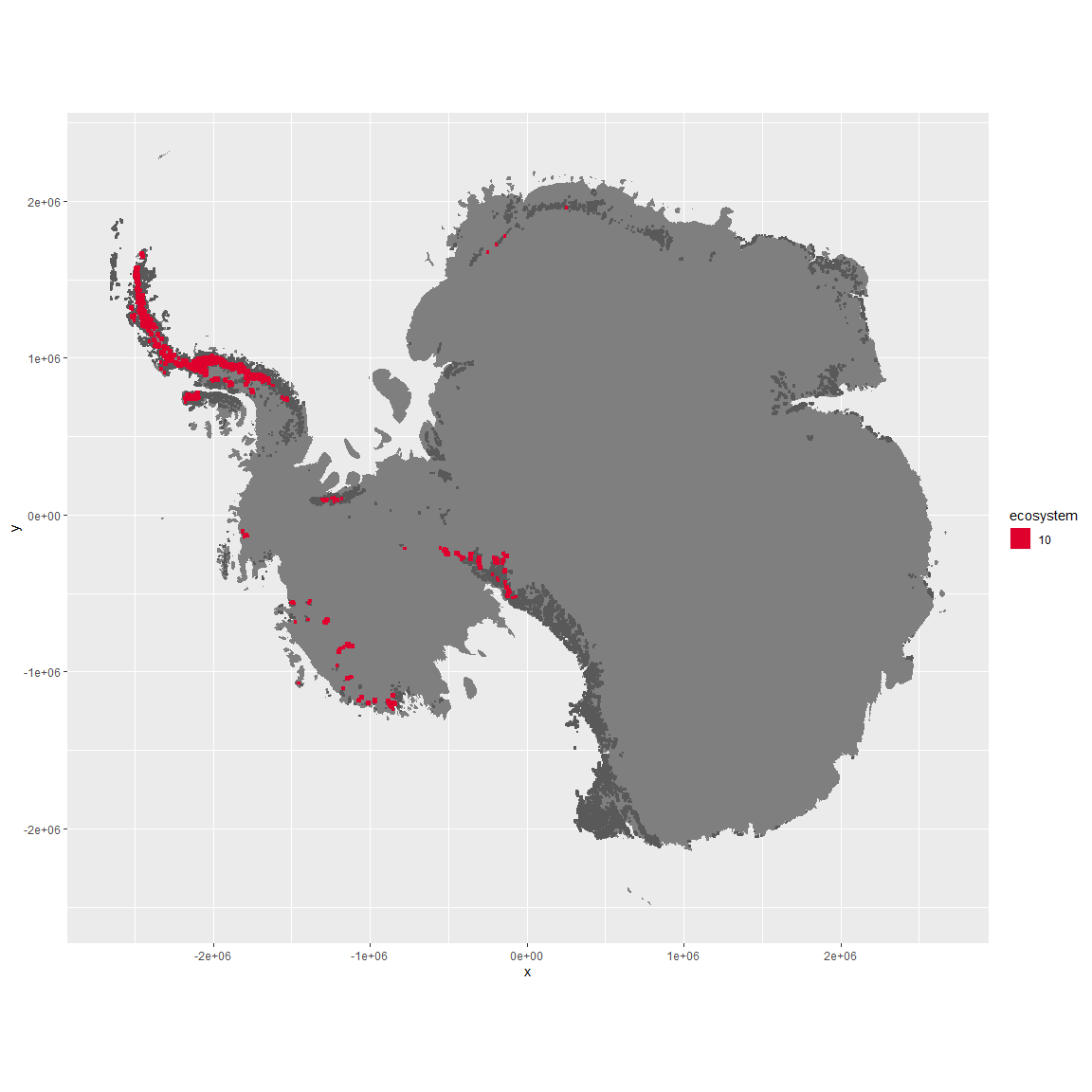
### Photos (if available)



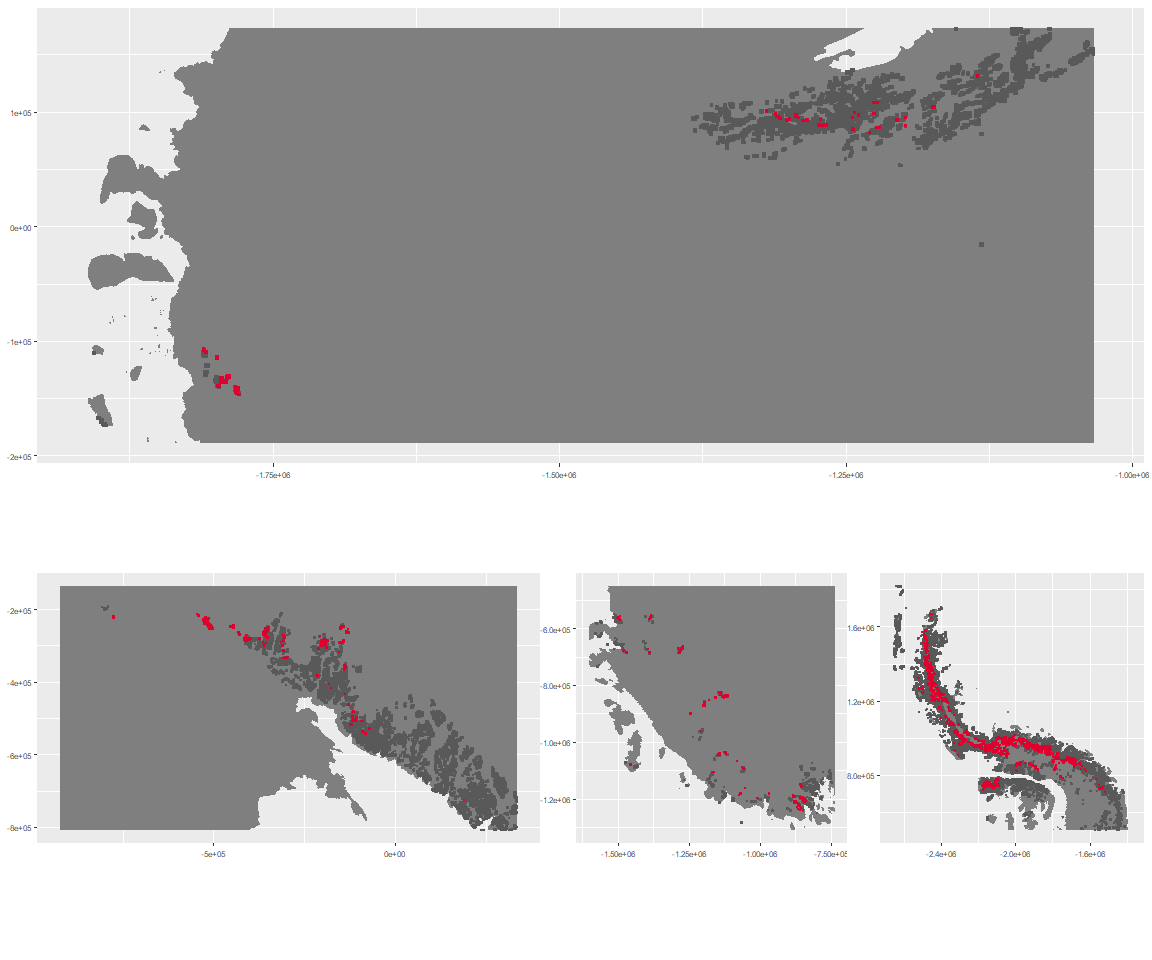
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

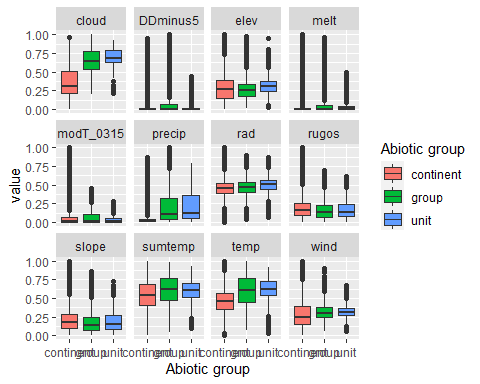
The unit env2\_sdm4 is part of the environmental supergroup env2.

This supergroup is, on average, substantially higher in cloud, precip, temp and sumtemp than continental antarctica. It is substantially lower in no variables than the rest of the continent.

The elevation of unit env2\_sdm4 ranges from 0 to 4511 metres above sea level, but 90% of its pixels fall above 699 and below 2661 metres. Its average elevation is 1516 metres.

The unit is higher in elev and cloud and lower in melt than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

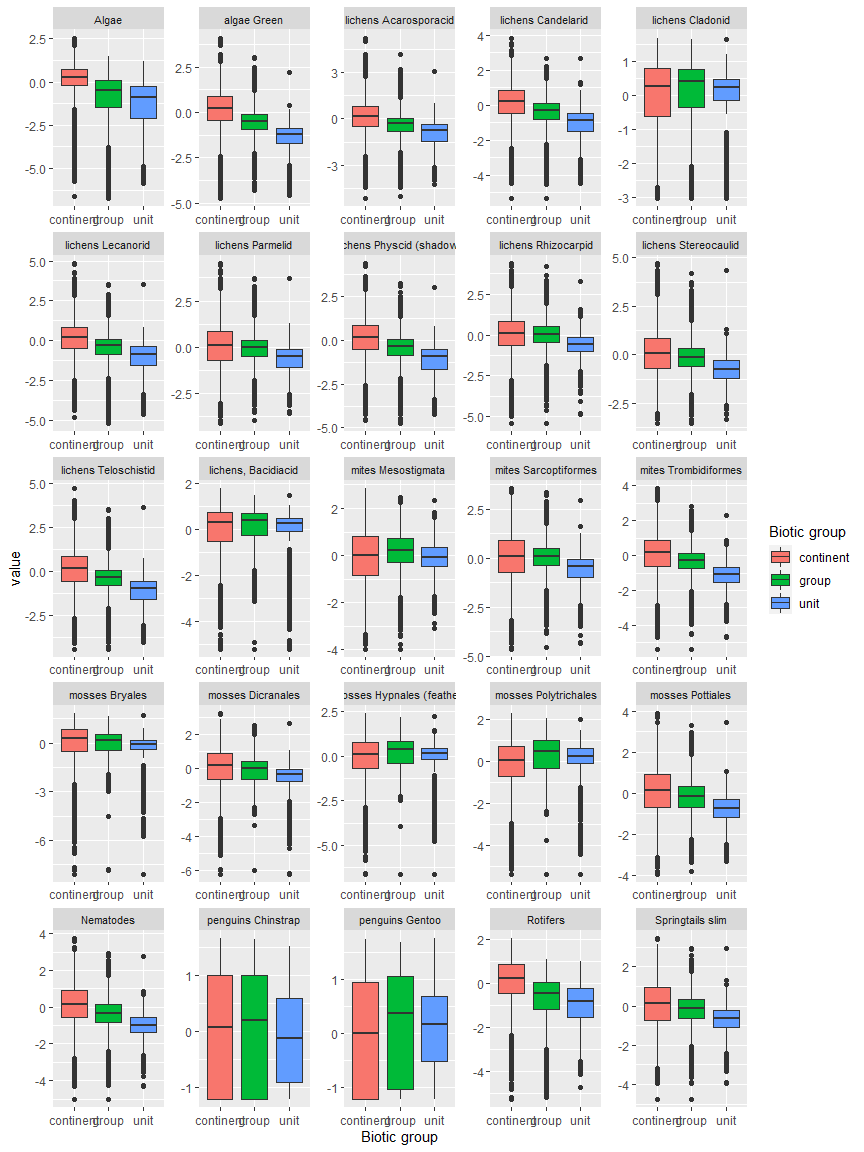
The top most widespread species in ecosystem env2\_sdm4

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 18 | 15.3846 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 12 | 10.2564 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 11 | 9.4017 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 6 | 5.1282 |
| Carbonea vorticosa | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 5 | 4.2735 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 5 | 4.2735 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 4 | 3.4188 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 4 | 3.4188 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 3 | 2.5641 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 3 | 2.5641 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for mites\_Trombidiformes, Nematodes, lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), algae\_Green, Rotifers and Algae than the rest of the continent.

Unit env2\_sdm4 is higher in suitability for no variables and lower in suitability for mites\_Mesostigmata, mosses\_Polytrichales, mosses\_Hypnales\_(feather), Algae, mosses\_Bryales, mosses\_Dicranales, lichens\_Acarosporacid, Springtails\_slim, mites\_Sarcoptiformes, lichens\_Lecanorid, lichens\_Candelarid, lichens\_Parmelid, lichens\_Rhizocarpid, lichens\_Stereocaulid, lichens\_Physcid\_(shadow), mosses\_Pottiales, lichens\_Teloschistid, Nematodes, mites\_Trombidiformes and algae\_Green than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

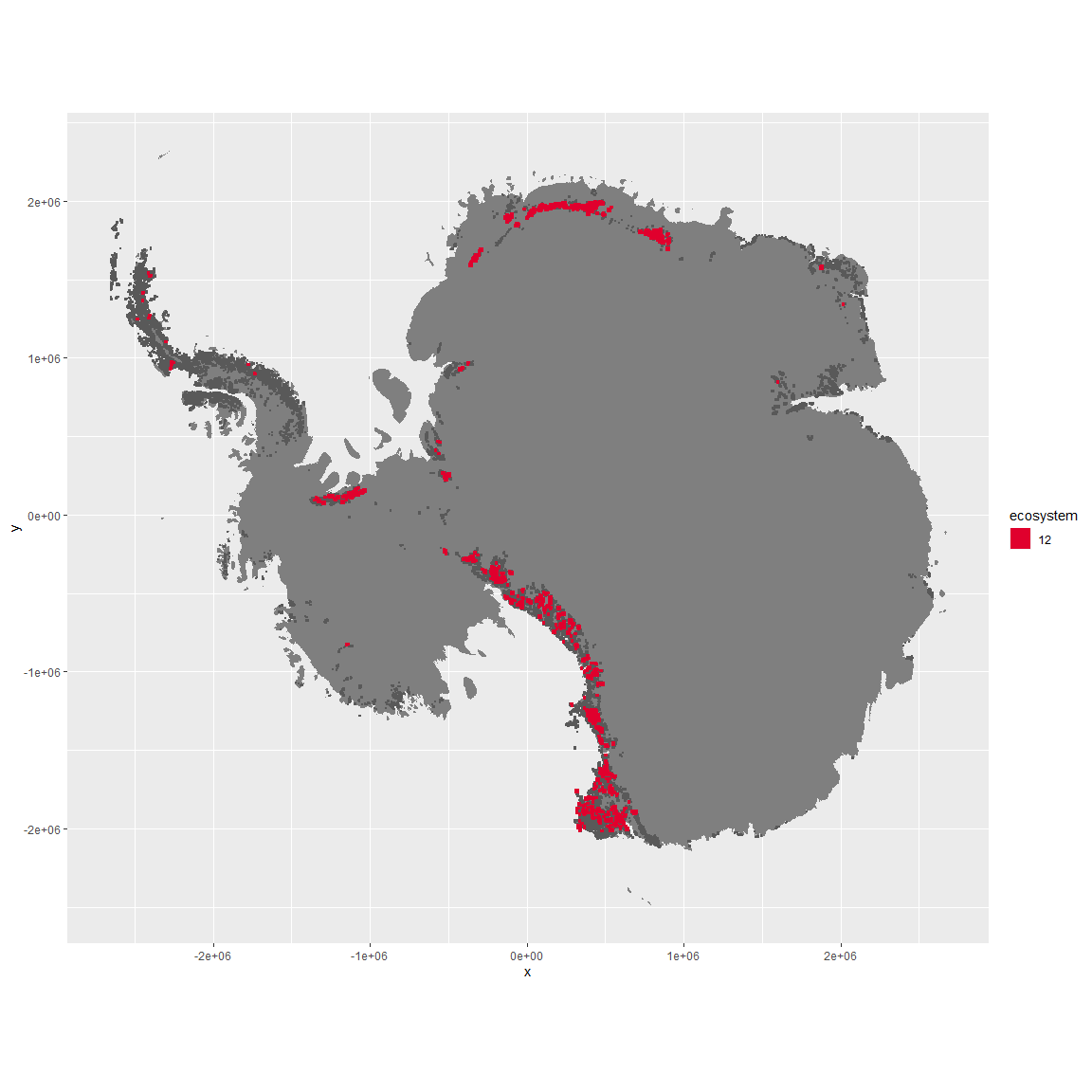
## Ecosystem Env3\_sdm1

Env3\_sdm1. Occurs mainly in the Transantarctic mountains, Victoria Land and Dronning Maud land. Unit has especially low cloud and highest wind in the group. Main sampled biota appears to be arthopods (springtails and mites) but Chlorophyta, Nematodes, and lichens are also represented. Suitability appears especially low for many mosses, penguins, and some lichens (Cladoniaceae and Bacidiaceae).

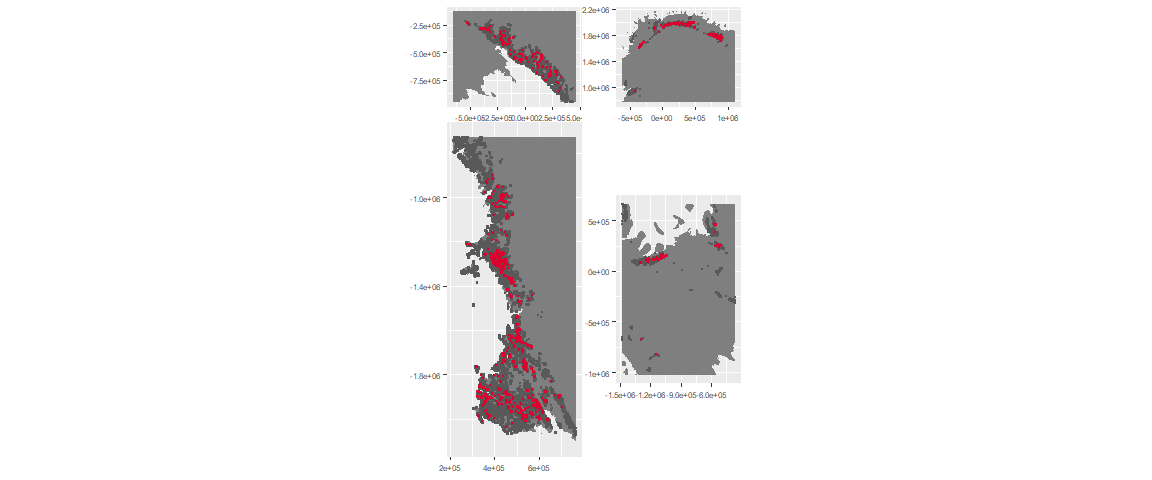
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

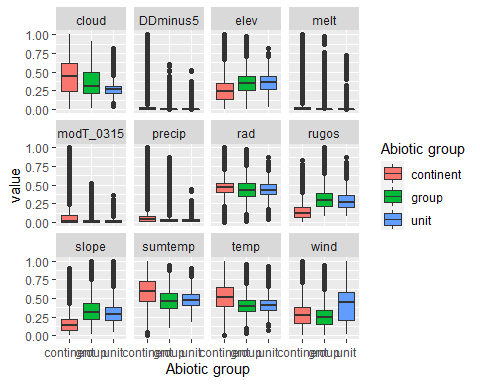
The unit env3\_sdm1 is part of the environmental supergroup env3.

This supergroup is, on average, substantially higher in slope, rugos and elev than continental antarctica. It is substantially lower in cloud, sumtemp and temp than the rest of the continent.

The elevation of unit env3\_sdm1 ranges from 0 to 3679 metres above sea level, but 90% of its pixels fall above 775 and below 2536 metres. Its average elevation is 1696 metres.

The unit is higher in wind and lower in cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

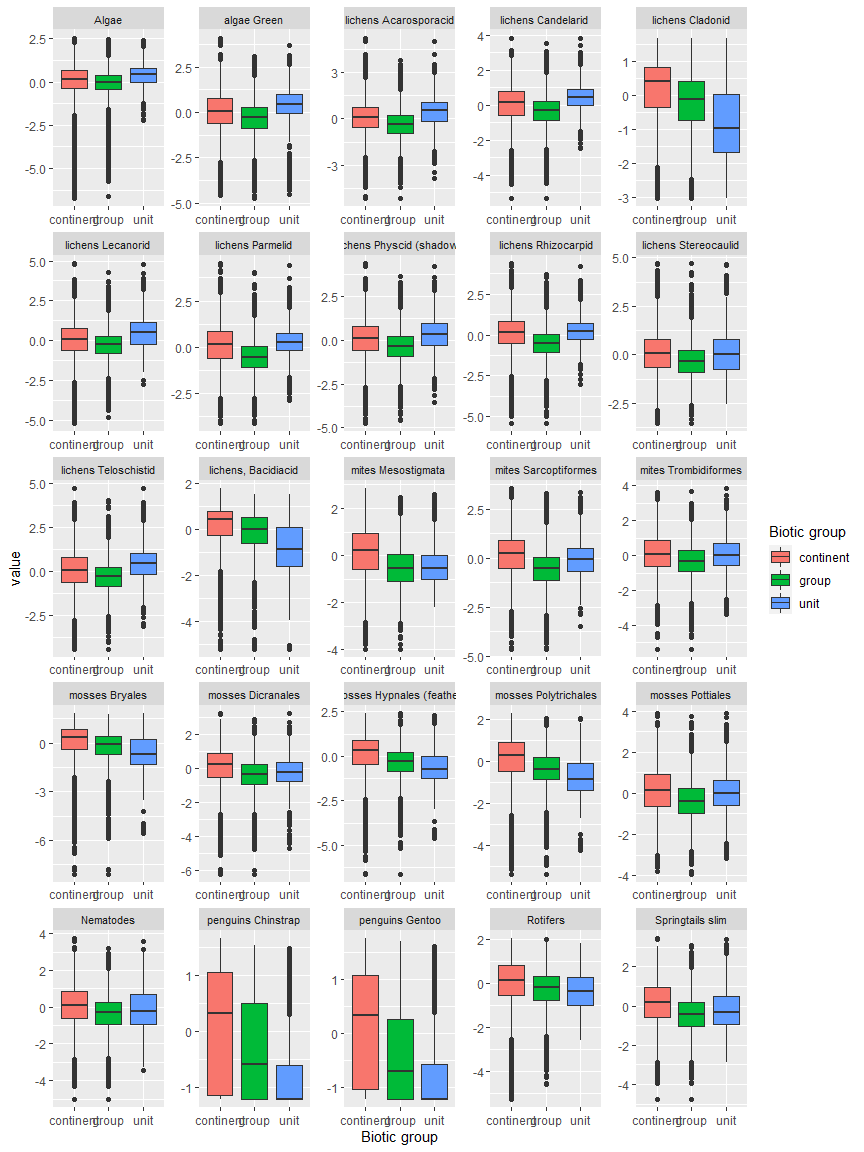
The top most widespread species in ecosystem env3\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 6 | 5.3097 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 5 | 4.4248 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 4 | 3.5398 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 3 | 2.6549 |
| Plectus frigophilus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 3 | 2.6549 |
| Prasiola crispa | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 3 | 2.6549 |
| Candelariella hallettensis | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 2 | 1.7699 |
| Carbonea vorticosa | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 1.7699 |
| Cryptopygus sverdrupi | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 2 | 1.7699 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 1.7699 |
| Eupodes angardi | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 2 | 1.7699 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.7699 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 2 | 1.7699 |
| Pygoscelis adeliae | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_adeliae | Chordata | FALSE | 2 | 1.7699 |
| Tydeus erebus | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 2 | 1.7699 |
| Umbilicaria aprina | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 2 | 1.7699 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 2 | 1.7699 |
| Xanthoria sp. | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 2 | 1.7699 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for Springtails\_slim, lichens\_Cladonid, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, mites\_Sarcoptiformes, mites\_Mesostigmata and penguins\_Gentoo than the rest of the continent.

Unit env3\_sdm1 is higher in suitability for lichens\_Acarosporacid, lichens\_Parmelid, lichens\_Candelarid, algae\_Green, lichens\_Rhizocarpid, lichens\_Teloschistid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), mites\_Sarcoptiformes, Algae, mites\_Trombidiformes, mosses\_Pottiales and lichens\_Stereocaulid and lower in suitability for mosses\_Polytrichales, mosses\_Bryales, penguins\_Gentoo, penguins\_Chinstrap, lichens,\_Bacidiacid and lichens\_Cladonid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env3\_sdm2 Steep coastal wind-shaded cliffs and mountainsides

Env3\_sdm2 Steep coastal wind-shaded cliffs and mountainsides. Occurs mainly along the Eastern coast of the peninsula and throughout the Transantarctic mountains and Victoria Land. Lowest wind and warmest temps in the group, relatively moist (cloud and precip). Unit is lower than group average but still above continental average in elevation, but higher than both in rugosity and slope. Biota are mainly lichens with some nematodes sampled.

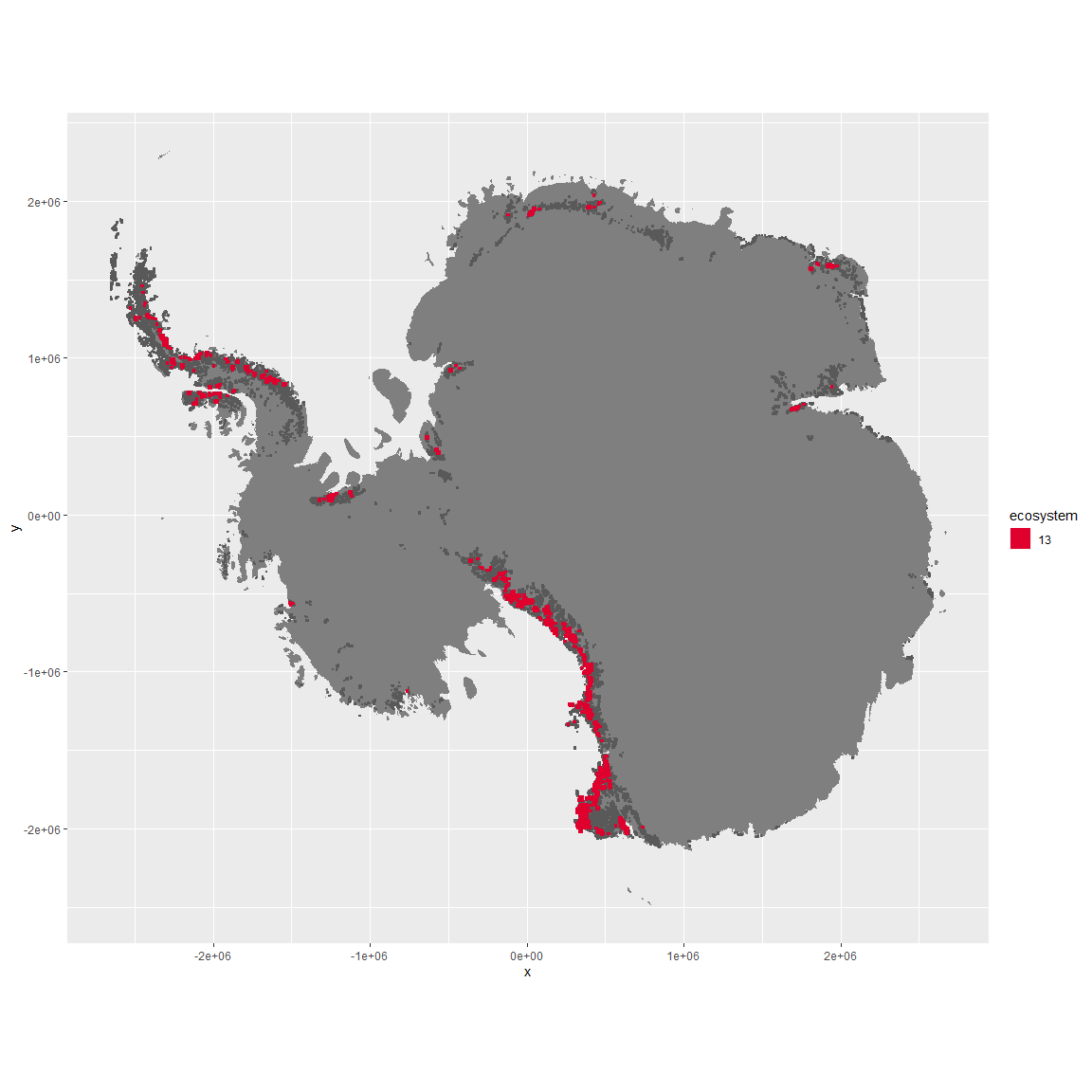
### Photos (if available)



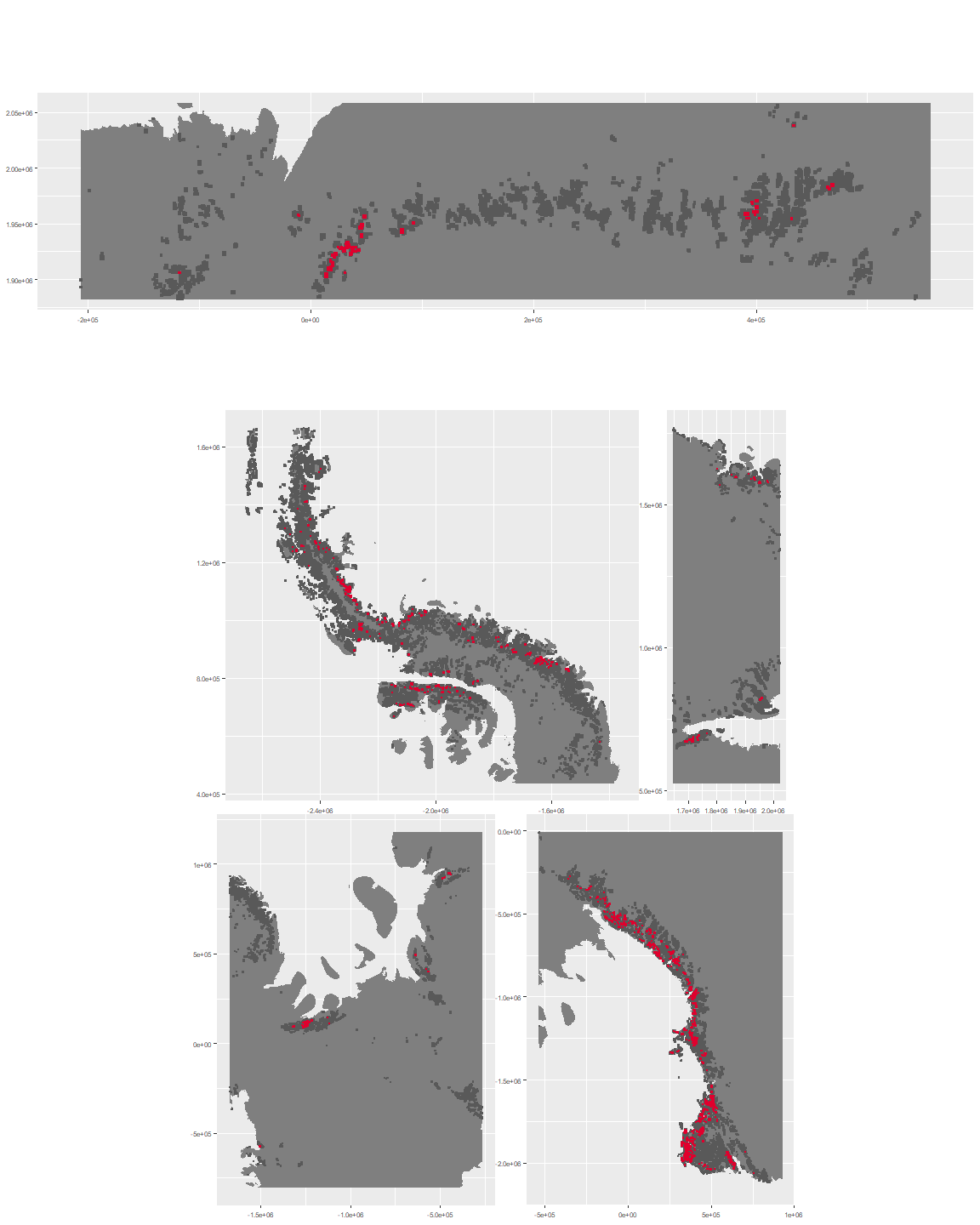
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

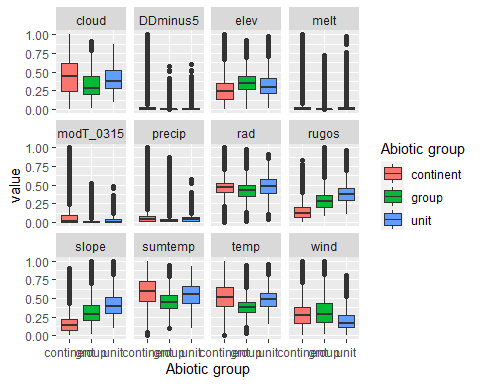
The unit env3\_sdm2 is part of the environmental supergroup env3.

This supergroup is, on average, substantially higher in slope, rugos and elev than continental antarctica. It is substantially lower in cloud, sumtemp and temp than the rest of the continent.

The elevation of unit env3\_sdm2 ranges from 0 to 4815 metres above sea level, but 90% of its pixels fall above 567 and below 2908 metres. Its average elevation is 1582 metres.

The unit is higher in temp, slope, cloud, rugos, sumtemp, rad and melt and lower in wind than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

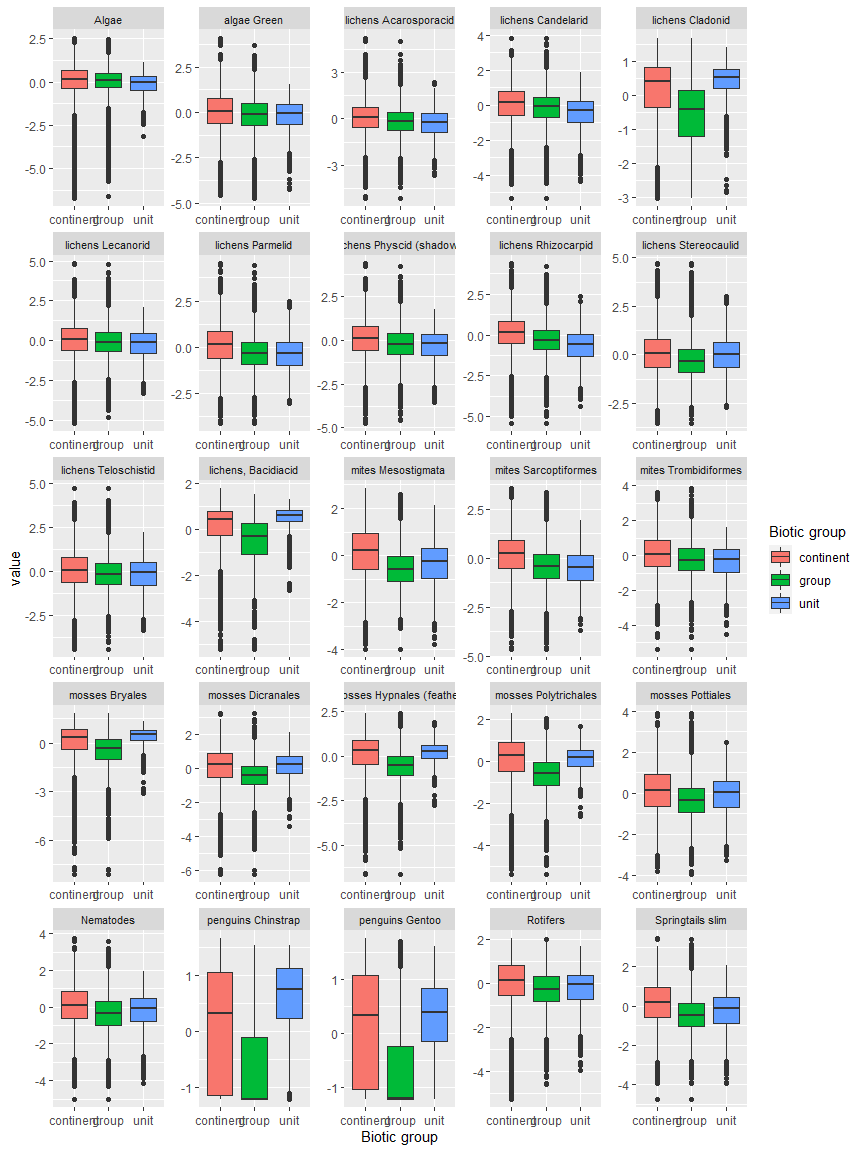
The top most widespread species in ecosystem env3\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 7 | 4.2683 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 5 | 3.0488 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 5 | 3.0488 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 4 | 2.4390 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 4 | 2.4390 |
| Lecanora physciella | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 3 | 1.8293 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 3 | 1.8293 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 3 | 1.8293 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 3 | 1.8293 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 3 | 1.8293 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for Springtails\_slim, lichens\_Cladonid, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, mites\_Sarcoptiformes, mites\_Mesostigmata and penguins\_Gentoo than the rest of the continent.

Unit env3\_sdm2 is higher in suitability for penguins\_Chinstrap, lichens,*Bacidiacid, lichens\_Cladonid, penguins\_Gentoo, mosses\_Bryales, mosses\_Hypnales*(feather), mosses\_Polytrichales and mosses\_Dicranales and lower in suitability for lichens\_Rhizocarpid and lichens\_Candelarid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env3\_sdm3

Env3\_sdm3. Occurs mainly in the Transantarctic mountains, Victoria land, and the Prince Charles mountains. May be both coastal and inland. Does not deviate much from group averages except that it’s less cloudy, maybe a tad less rugged than the group average. Most sampled biota are nematodes, but lichens and Entognatha (Arthropods) are also represented. Suitability is low for most functional groups, but Suitability for Ochrophyta and Rotifera is above the continental average, and suitability for Chlorophyta and Nematoda are above the group average. Unit is particularly unsuitable for penguins.

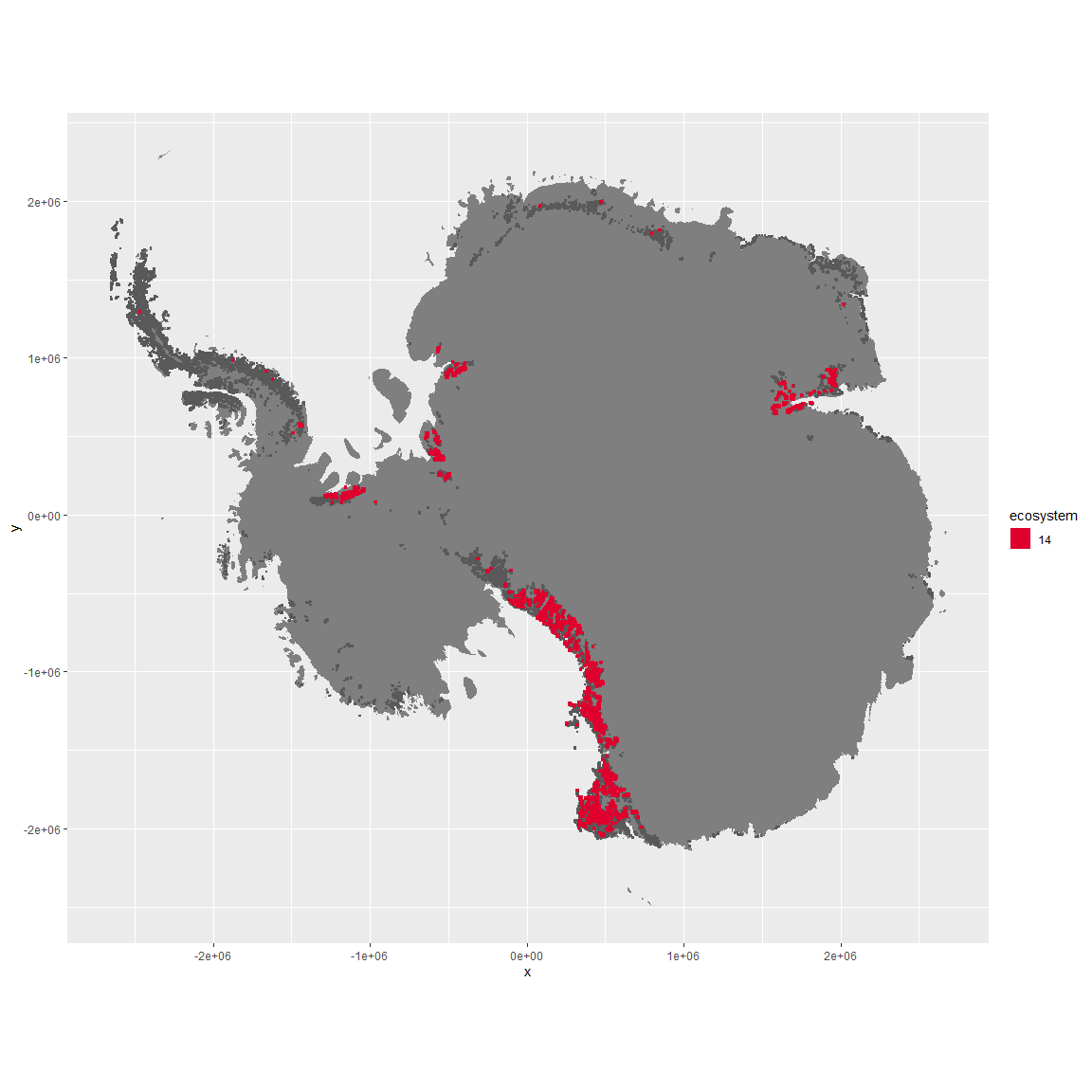
### Photos (if available)



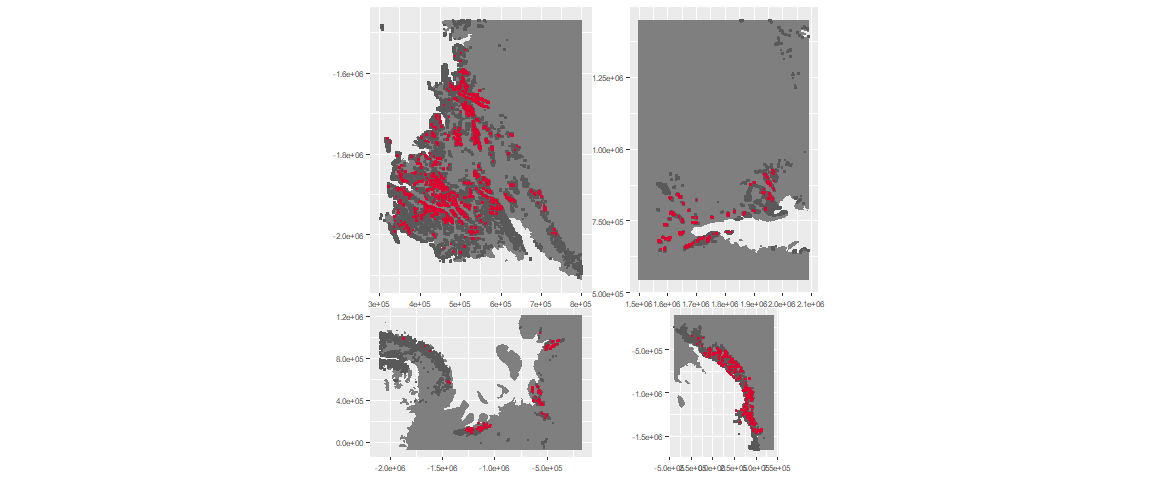
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

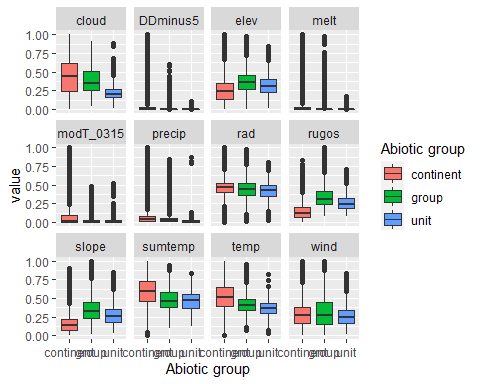
The unit env3\_sdm3 is part of the environmental supergroup env3.

This supergroup is, on average, substantially higher in slope, rugos and elev than continental antarctica. It is substantially lower in cloud, sumtemp and temp than the rest of the continent.

The elevation of unit env3\_sdm3 ranges from 0 to 4143 metres above sea level, but 90% of its pixels fall above 579 and below 2554 metres. Its average elevation is 1532 metres.

The unit is higher in no variables and lower in wind, elev, temp, rugos, slope and cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

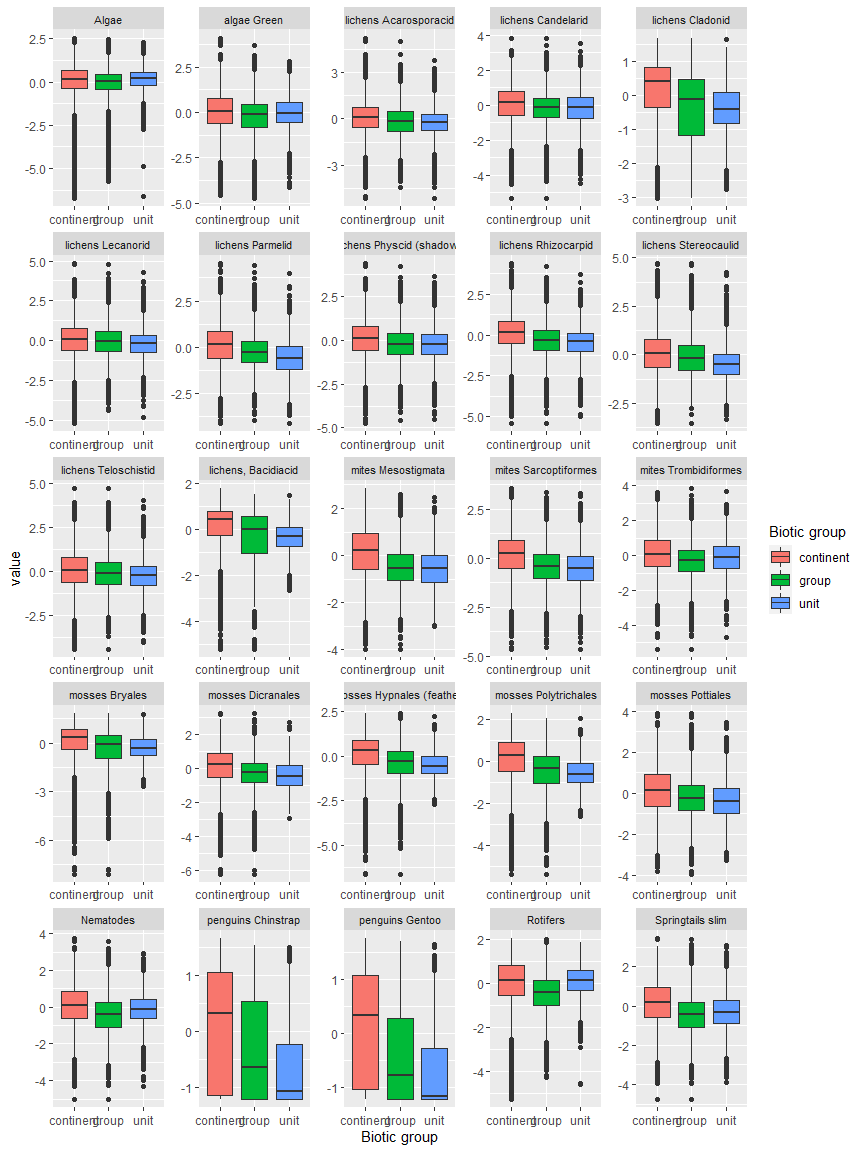
The top most widespread species in ecosystem env3\_sdm3

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Scottnema lindsayae | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 10 | 9.6154 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 6 | 5.7692 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 4 | 3.8462 |
| Buellia pallida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 3 | 2.8846 |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 3 | 2.8846 |
| Biscoia sudpolaris | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 2 | 1.9231 |
| Carbonea capsulata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.9231 |
| Geomonhystera antarcticola | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 1.9231 |
| Lecanora expectans | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.9231 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.9231 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 1.9231 |
| Nanorchestes antarcticus | Arthropoda\_Arachnida\_Sarcoptiformes\_\_\_ | Arthropoda | TRUE | 2 | 1.9231 |
| Plectus murrayi | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 1.9231 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 2 | 1.9231 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 1.9231 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 2 | 1.9231 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for Springtails\_slim, lichens\_Cladonid, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, mites\_Sarcoptiformes, mites\_Mesostigmata and penguins\_Gentoo than the rest of the continent.

Unit env3\_sdm3 is higher in suitability for Rotifers and Nematodes and lower in suitability for lichens\_Parmelid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

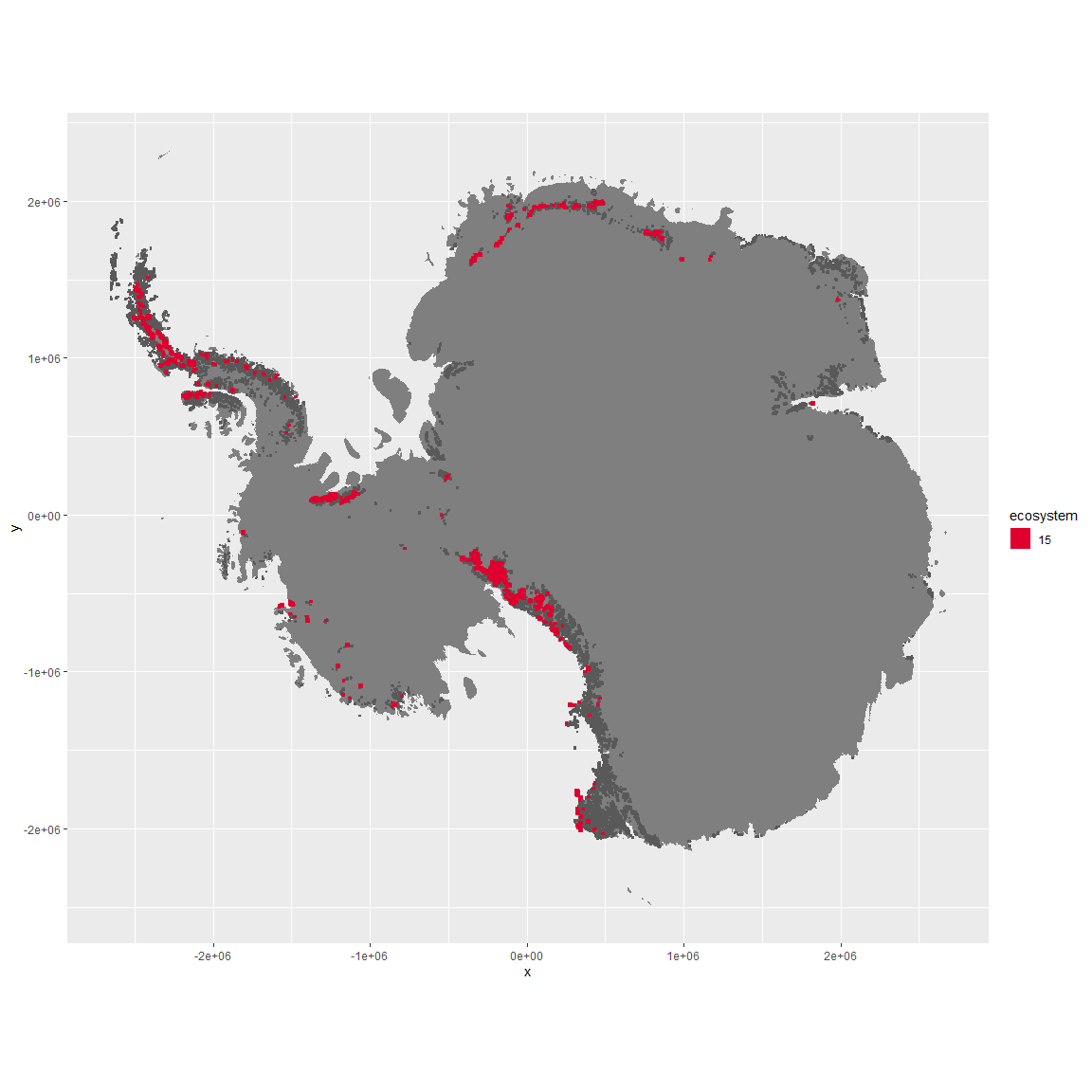
## Ecosystem Env3\_sdm4 Steep coastal wind-exposed cliffs and mountainsides

Env3\_sdm4 Steep coastal wind-exposed cliffs and mountainsides. Occurs mainly in the North peninsula and western Transantarctic mountains. Cloudier and a bit more rugged than rest of unit and than the continental average. Sampled biota is a mix of nematodes, lichens, mosses, and Arthropods. Suitability is lower than the continental average for all functional groups, but is apparently highest for Ochrophytes and perhaps some lichen groups.

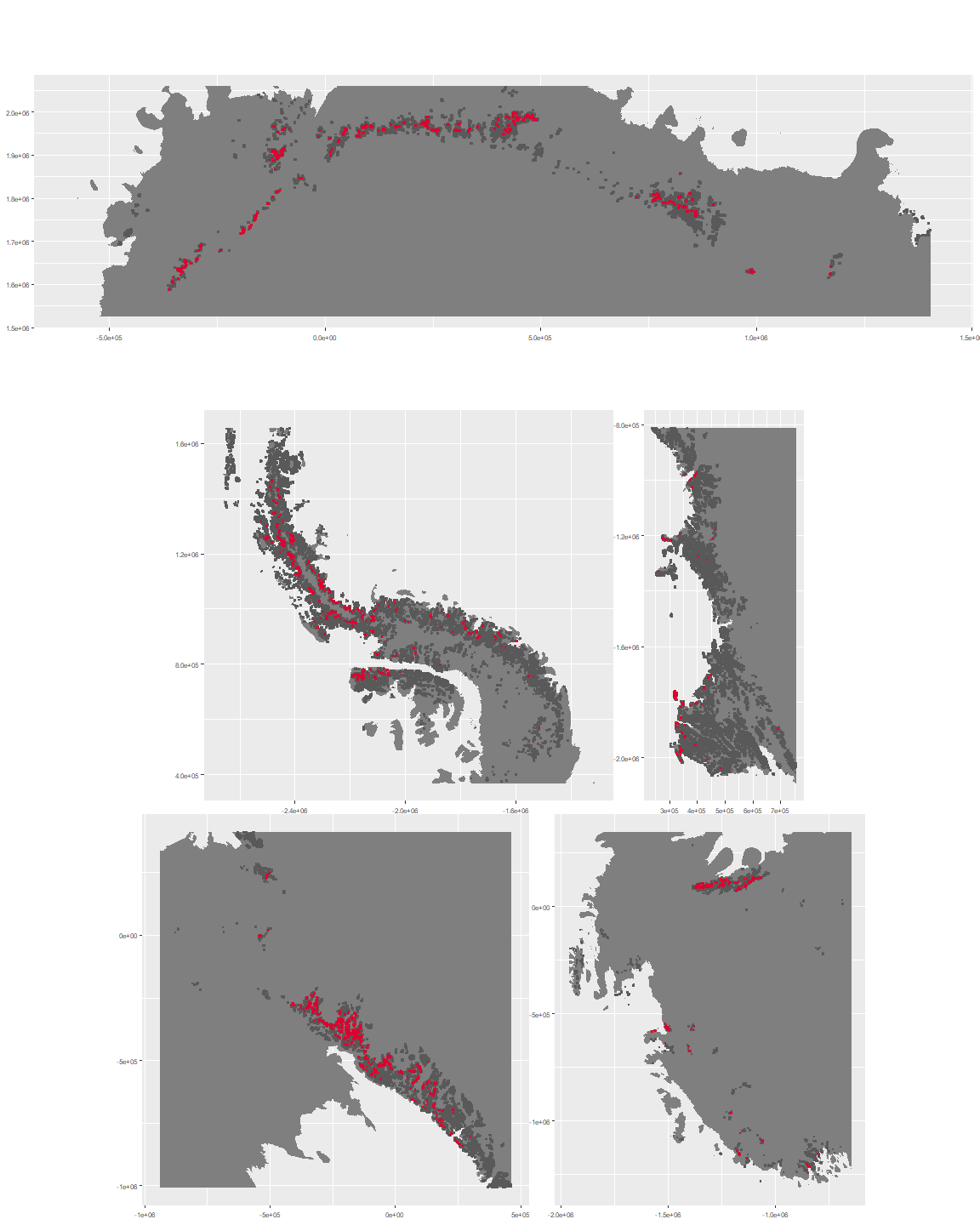
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

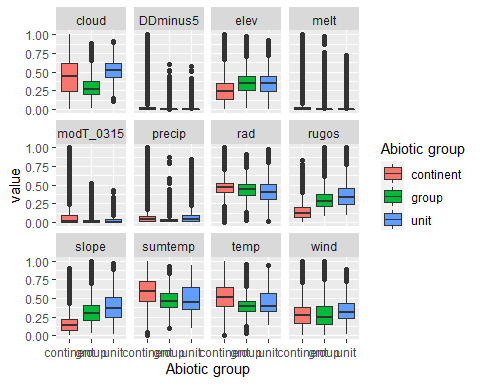
The unit env3\_sdm4 is part of the environmental supergroup env3.

This supergroup is, on average, substantially higher in slope, rugos and elev than continental antarctica. It is substantially lower in cloud, sumtemp and temp than the rest of the continent.

The elevation of unit env3\_sdm4 ranges from 0 to 4966 metres above sea level, but 90% of its pixels fall above 227 and below 2923 metres. Its average elevation is 1613 metres.

The unit is higher in cloud, precip, slope, rugos, temp and wind and lower in no variables than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

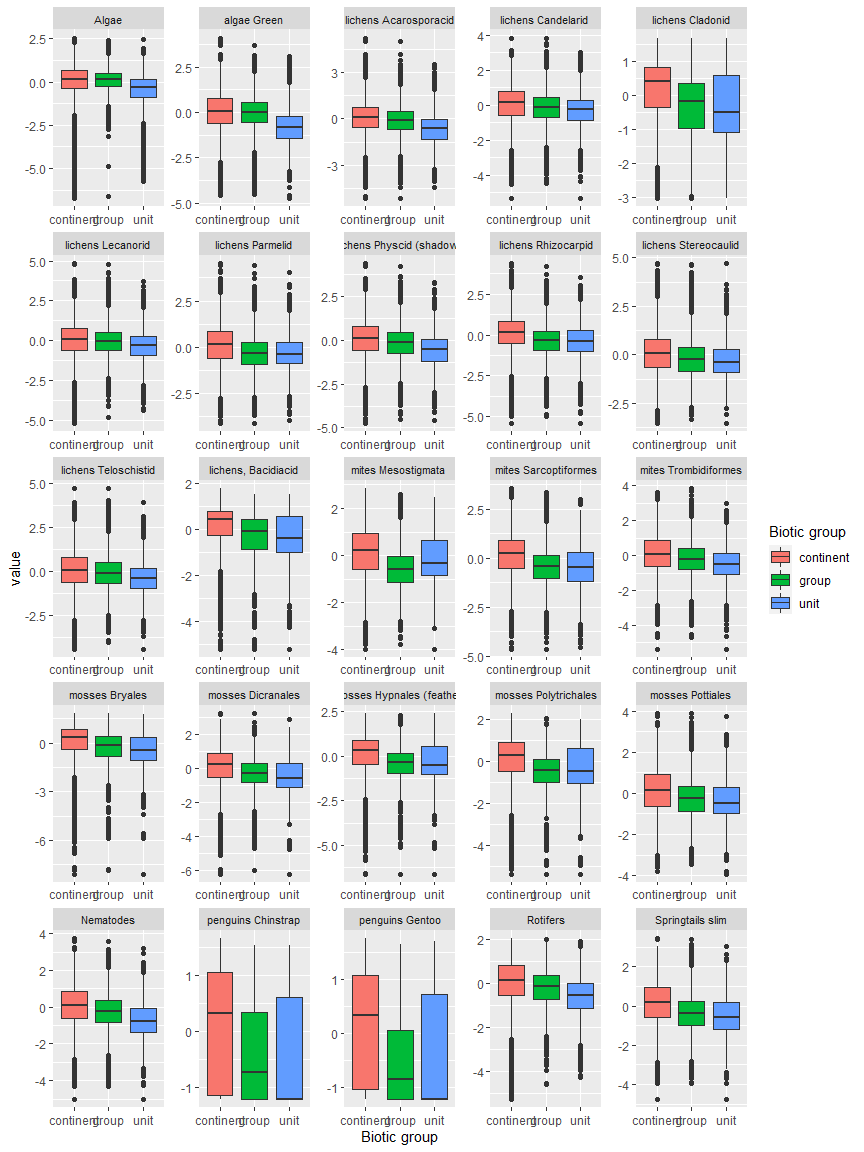
The top most widespread species in ecosystem env3\_sdm4

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pohlia cruda | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 3 | 4.8387 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 3 | 4.8387 |
| Pygoscelis adeliae | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_adeliae | Chordata | FALSE | 3 | 4.8387 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 2 | 3.2258 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 3.2258 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 3.2258 |
| Nanorchestes antarcticus | Arthropoda\_Arachnida\_Sarcoptiformes\_\_\_ | Arthropoda | TRUE | 2 | 3.2258 |
| Plectus murrayi | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 3.2258 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 2 | 3.2258 |
| Arthrorhaphis citrinella | Ascomycota\_Lecanoromycetes\_Not assigned\_Arthrorhaphidaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Brachythecium austro-salebrosum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | TRUE | 1 | 1.6129 |
| Brachythecium subpilosum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Buellia darbishirei | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Caloplaca isidioclada | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Candelaria murrayi | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Cladonia galindezii | Ascomycota\_Lecanoromycetes\_Lecanorales\_Cladoniaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Coccorhagidia gressitti | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 1 | 1.6129 |
| Colobanthus quitensis | Tracheophyta\_\_\_\_\_ | Tracheophyta | FALSE | 1 | 1.6129 |
| Deschampsia antarctica | Tracheophyta\_\_\_\_\_ | Tracheophyta | FALSE | 1 | 1.6129 |
| Desmococcus sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.6129 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 1 | 1.6129 |
| Gloeocapsa sp. | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.6129 |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 1 | 1.6129 |
| Grimmia lawiana | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 1 | 1.6129 |
| Grimmia reflexidens | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Isotoma klovstadi | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 1 | 1.6129 |
| Lecanora cf. orosthea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Lecanora expectans | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Luticola sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.6129 |
| Pannaria hookeri | Ascomycota\_Lecanoromycetes\_Peltigerales\_Pannariaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Placopsis contortuplicata | Ascomycota\_Lecanoromycetes\_Baeomycetales\_Trapeliaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Polytrichastrum alpinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Polytrichum juniperinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Polytrichum piliferum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Rhizocarpon adarense | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Rhizocarpon sp. | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Stereocaulon antarcticum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | TRUE | 1 | 1.6129 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 1 | 1.6129 |
| Stichococcus bacillaris | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.6129 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Tephromela atra | Ascomycota\_Lecanoromycetes\_Lecanorales\_Mycoblastaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Umbilicaria aprina | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |
| Warnstorfia sarmentosa | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 1.6129 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 1 | 1.6129 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for Springtails\_slim, lichens\_Cladonid, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, mites\_Sarcoptiformes, mites\_Mesostigmata and penguins\_Gentoo than the rest of the continent.

Unit env3\_sdm4 is higher in suitability for mites\_Mesostigmata and lower in suitability for Rotifers, lichens\_Physcid\_(shadow), Nematodes, lichens\_Acarosporacid, Algae and algae\_Green than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

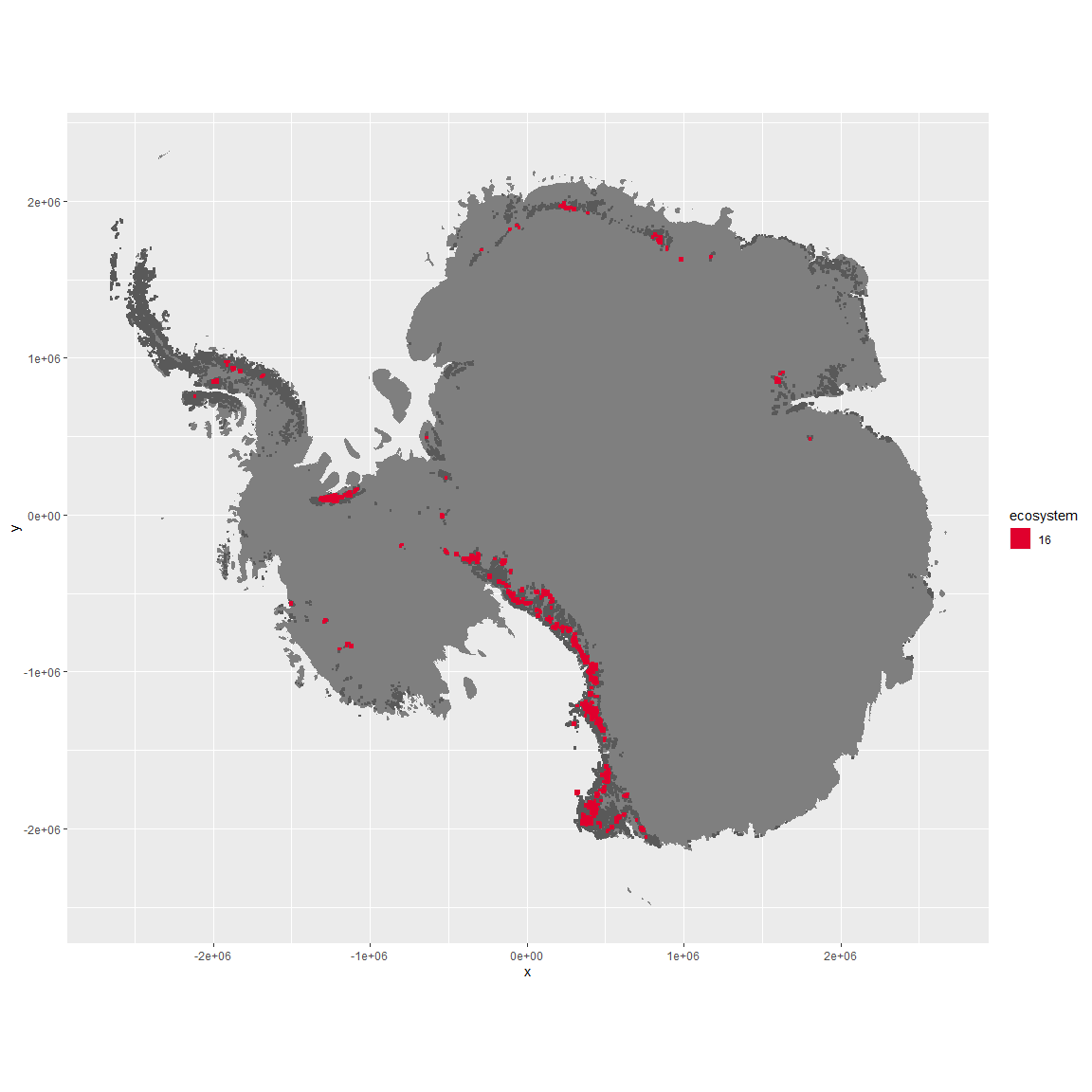
## Ecosystem Env3\_sdm5 Inland high mountains

Env3\_sdm5 Inland high mountains. Occurs mainly in the Transantarctic mountains and Victoria land. This unit is an extreme example, higher and colder than the unit average. Unit does not occur near the coast. Biota is sparse but consists mainly of lichens, but suitability is below the continental average for all functional groups. The highest suitability is apparently for Ochrophyta.

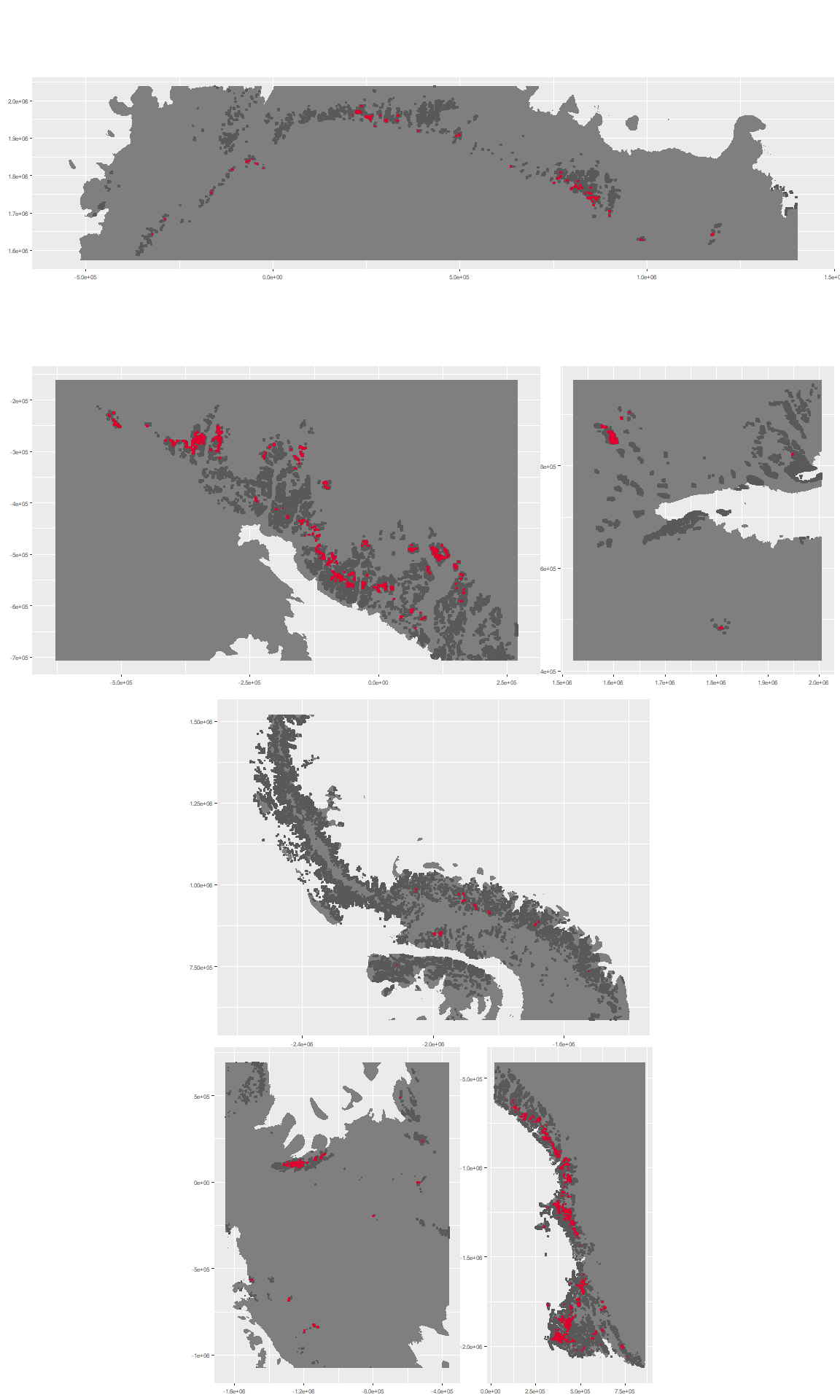
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

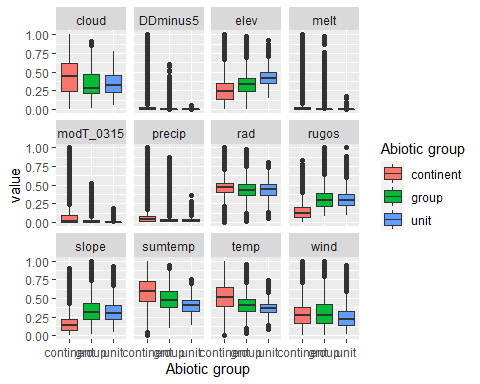
The unit env3\_sdm5 is part of the environmental supergroup env3.

This supergroup is, on average, substantially higher in slope, rugos and elev than continental antarctica. It is substantially lower in cloud, sumtemp and temp than the rest of the continent.

The elevation of unit env3\_sdm5 ranges from 93 to 4365 metres above sea level, but 90% of its pixels fall above 1324 and below 2943 metres. Its average elevation is 2064 metres.

The unit is higher in elev and lower in wind, temp and sumtemp than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

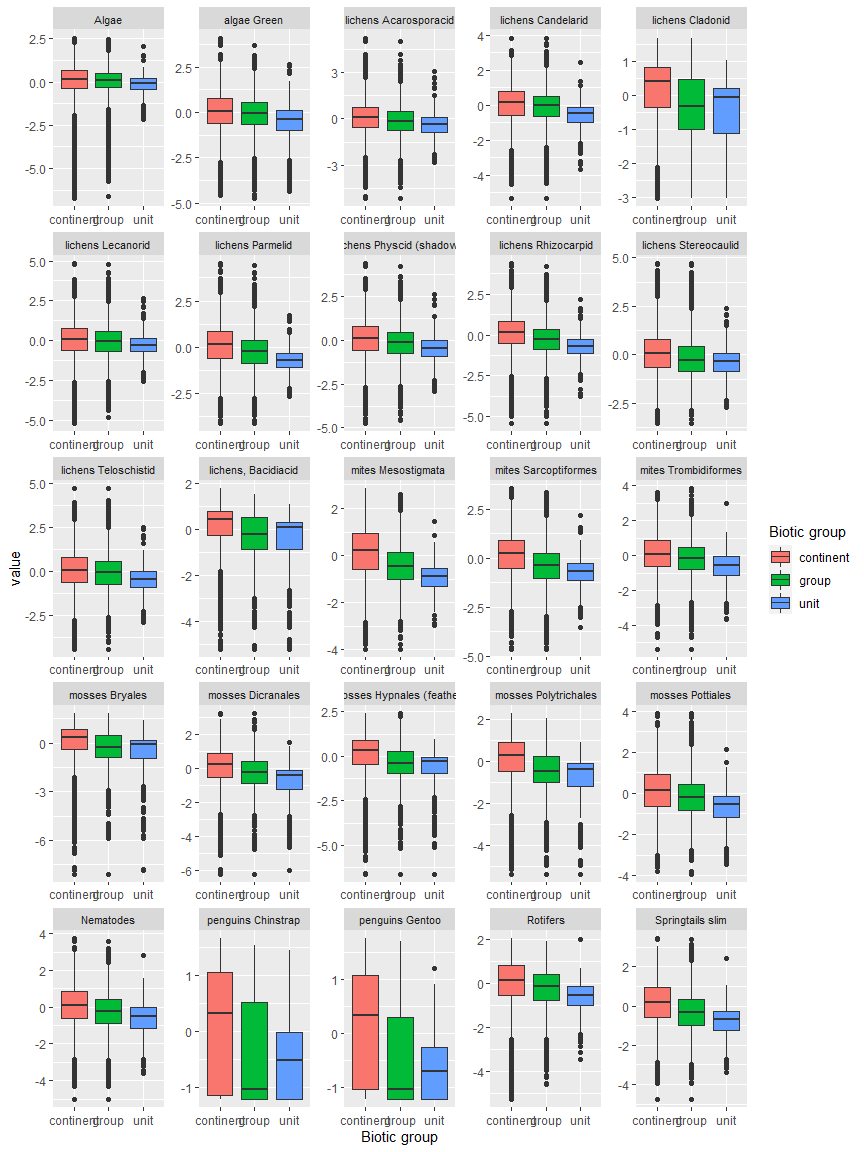
The top most widespread species in ecosystem env3\_sdm5

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Carbonea capsulata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 3 | 5.2632 |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 2 | 3.5088 |
| Carbonea vorticosa | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 3.5088 |
| Hemichloris antarctica | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 2 | 3.5088 |
| Heterococcus endolithicus | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 2 | 3.5088 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 3.5088 |
| Neocryptopygus nivicolus | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 2 | 3.5088 |
| Scottnema lindsayae | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 3.5088 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 2 | 3.5088 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Achnanthes sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.7544 |
| Antarcticinella monoculata | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 1 | 1.7544 |
| Aulacoseira sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.7544 |
| Blastenia cf. bastini | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Buellia bastinii | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Buellia evanescens | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Buellia grisea | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Buellia pallida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Caloneis tenuis | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 1 | 1.7544 |
| Campylopus pyriformis | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 1 | 1.7544 |
| Coccomyxa gloeobotrydiformis | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.7544 |
| Cyclotella ocellata | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 1 | 1.7544 |
| Elliptochloris reniformis | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.7544 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 1 | 1.7544 |
| Fragilaria berolinensis | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.7544 |
| Fragilaria sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.7544 |
| Gloeocapsa magma | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.7544 |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 1 | 1.7544 |
| Graesiella emersonii | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.7544 |
| Hassallia bouteillei | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.7544 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Lecidea coreyi | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Mastigocladus laminosus | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.7544 |
| Parmelia griseola | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Pinnularia maior | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 1 | 1.7544 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Pseudococcomyxa simplex | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.7544 |
| Rhizocarpon geographicum | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 1 | 1.7544 |
| Stigonema ocellatum | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.7544 |
| Trebouxia sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.7544 |
| Umbilicaria aprina | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Umbilicaria cf. krascheninnikovii | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 1.7544 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 1 | 1.7544 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for Springtails\_slim, lichens\_Cladonid, mosses\_Hypnales\_(feather), penguins\_Chinstrap, mosses\_Polytrichales, mites\_Sarcoptiformes, mites\_Mesostigmata and penguins\_Gentoo than the rest of the continent.

Unit env3\_sdm5 is higher in suitability for no variables and lower in suitability for mosses\_Polytrichales, mites\_Sarcoptiformes, lichens\_Physcid\_(shadow), mosses\_Bryales, mosses\_Hypnales\_(feather), lichens\_Teloschistid, Rotifers, Nematodes, lichens\_Rhizocarpid, mites\_Trombidiformes, Springtails\_slim, lichens\_Parmelid, lichens\_Candelarid, algae\_Green, mites\_Mesostigmata, mosses\_Pottiales and mosses\_Dicranales than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env4\_sdm1, Windy overcast plateaus

Env4\_sdm1, Windy overcast plateaus. Occurs mainly on the eastern coast of the northern peninsula, Dronning Maud land, Enderby land, and in the Prince Charles mountains. This unit is especially windy and high in radiation (North-facing slopes?). Sampled fauna is scarce but consists of lichens, a few mosses and the occasional tardigrade. Suitability is below continental average for all functional groups in Env 4 but this unit nonetheless has higher than continental average suitability for Candelariaceae, Rhizocarpaceae, Acarosporaceae and to a lesser extent Permeliaceae lichens.

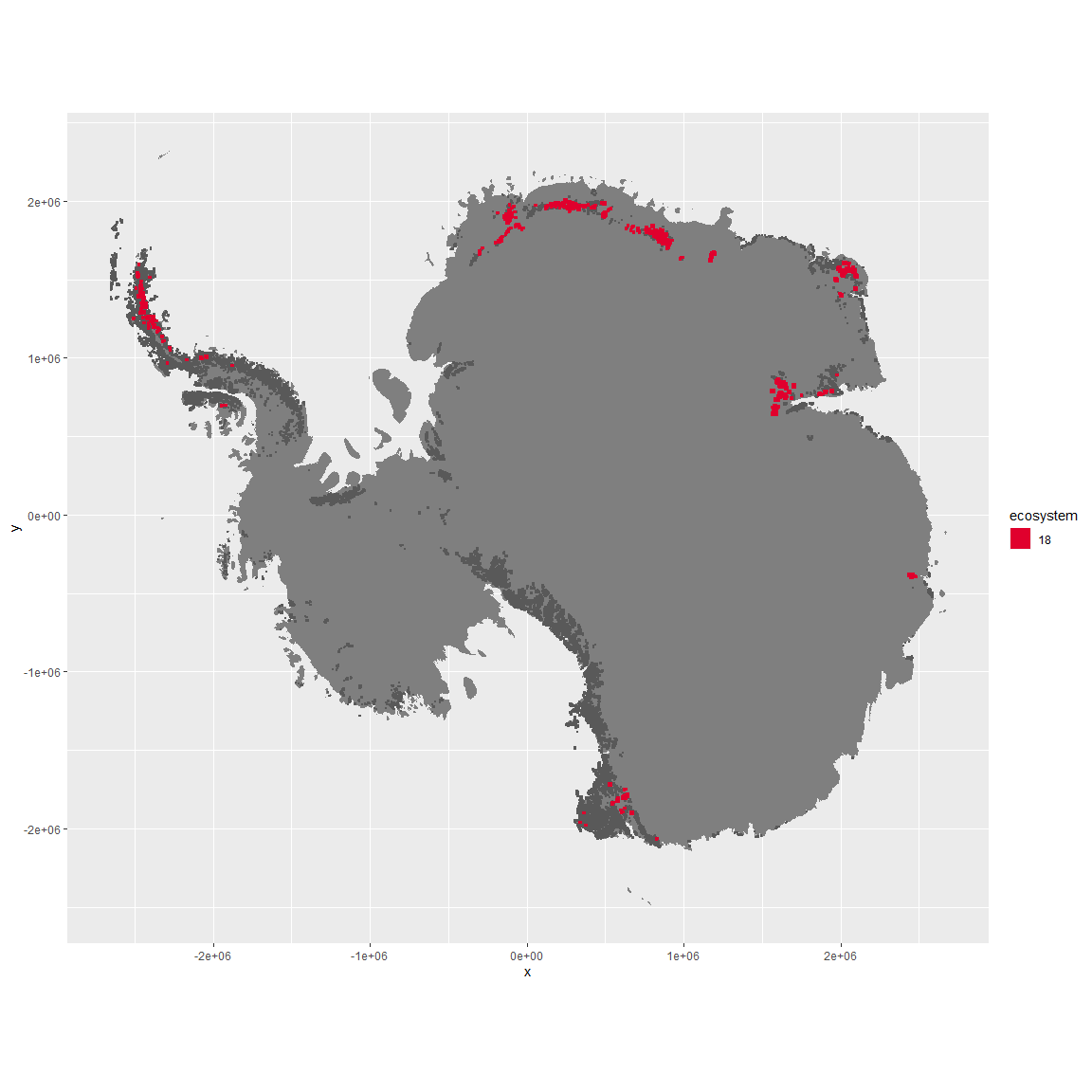
### Photos (if available)



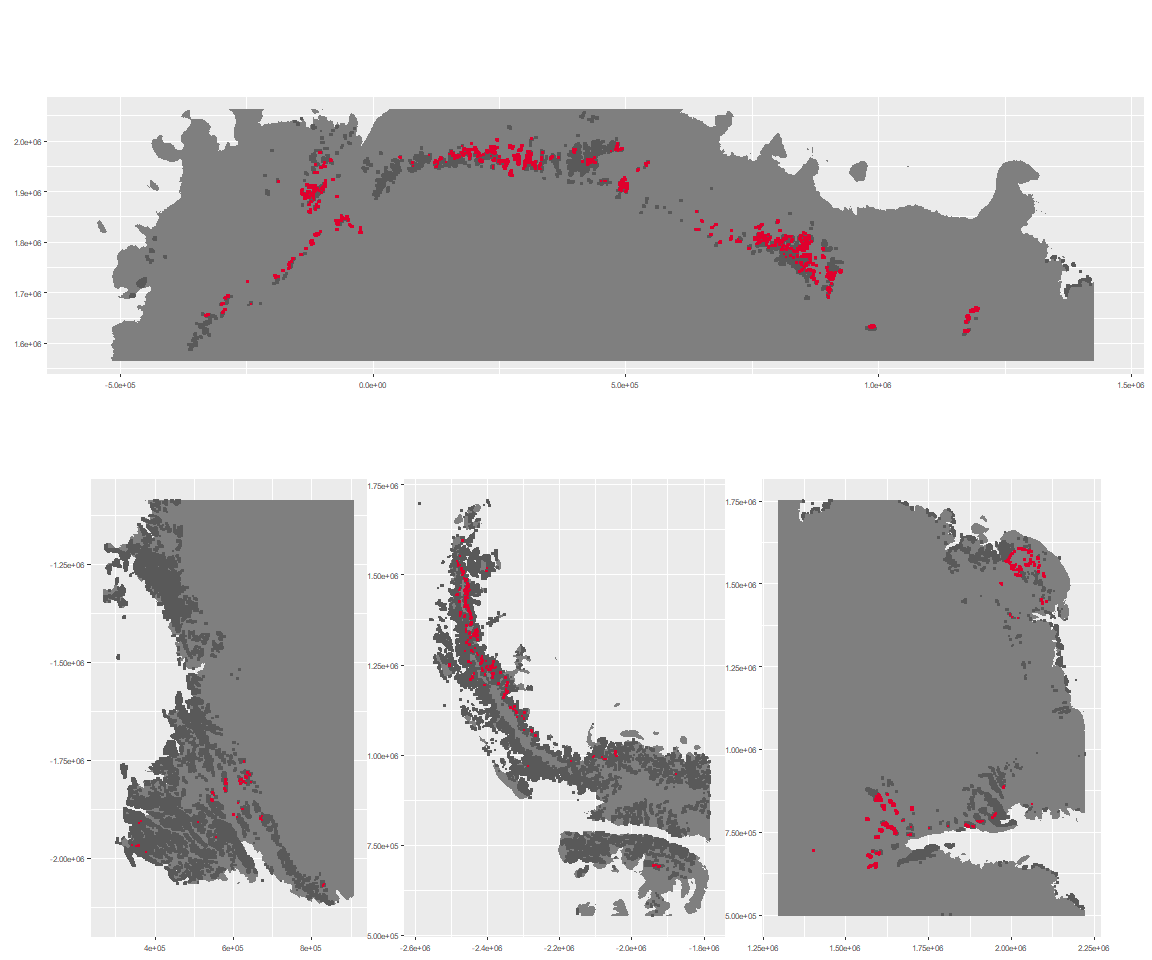
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

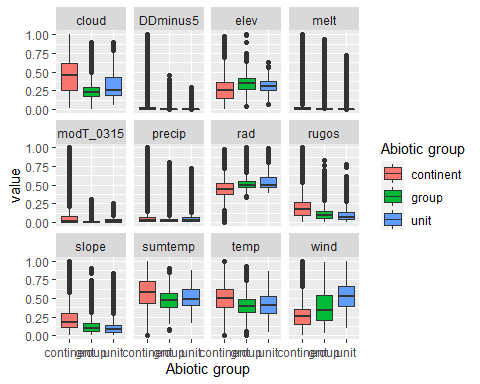
The unit env4\_sdm1 is part of the environmental supergroup env4.

This supergroup is, on average, substantially higher in wind, elev and rad than continental antarctica. It is substantially lower in rugos, sumtemp, slope, temp and cloud than the rest of the continent.

The elevation of unit env4\_sdm1 ranges from 21 to 2952 metres above sea level, but 90% of its pixels fall above 662 and below 2110 metres. Its average elevation is 1399 metres.

The unit is higher in wind and cloud and lower in no variables than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

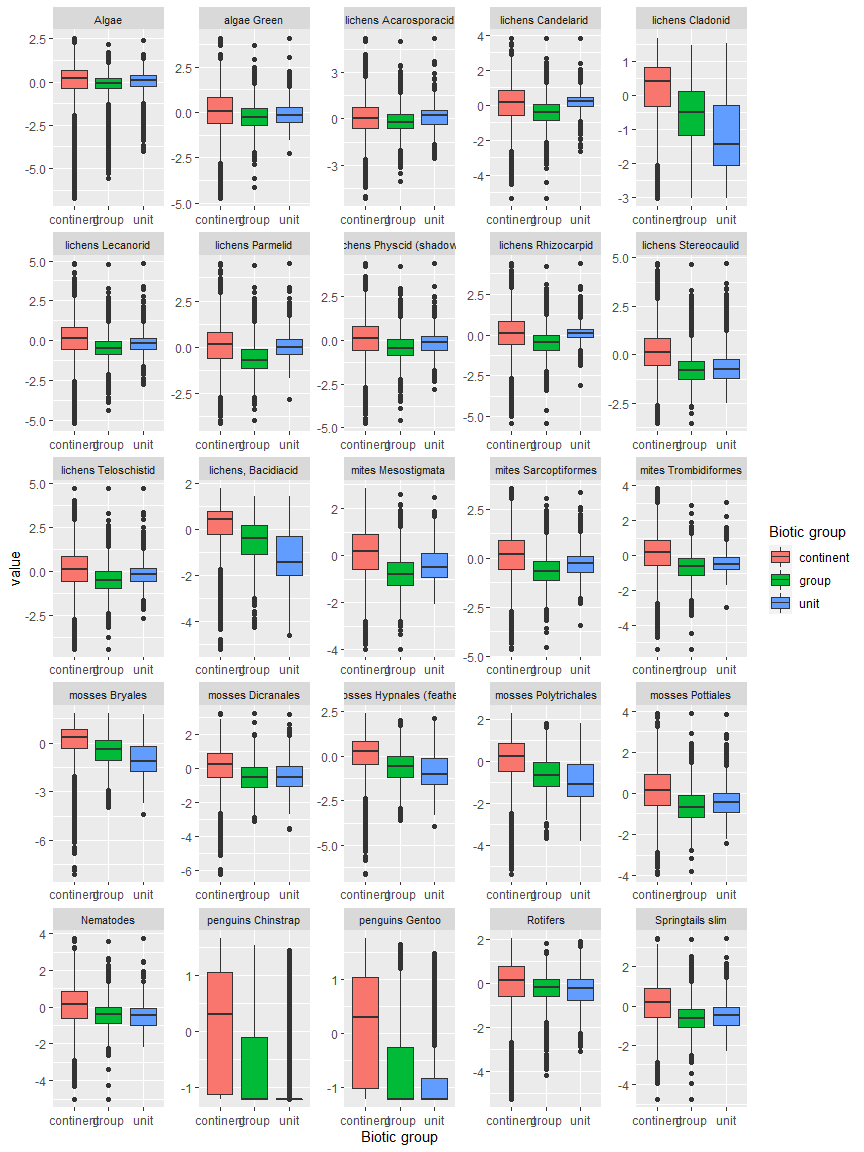
The top most widespread species in ecosystem env4\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 2 | 6.6667 |
| Coscinodon lawianus | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 2 | 6.6667 |
| Macrobiotus blocki | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 2 | 6.6667 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 2 | 6.6667 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 2 | 6.6667 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Andreaea depressinervis | Bryophyta\_Andreaeopsida\_Andreaeales\_\_\_ | Bryophyta | TRUE | 1 | 3.3333 |
| Buellia grisea | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 1 | 3.3333 |
| Buellia pallida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Carbonea cf. vorticosa | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Chlorosphaera sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 3.3333 |
| Diphascon sanae | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 3.3333 |
| Echiniscus jenningsi | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 3.3333 |
| Grimmia lawiana | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 1 | 3.3333 |
| Grimmia reflexidens | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | FALSE | 1 | 3.3333 |
| Hypsibius antarcticus | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 3.3333 |
| Lecidea andersonii | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Lecidea sp. | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Minibiotus stuckenbergi | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 3.3333 |
| Parmelia griseola | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Physcia llanoi | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Rhizocarpon adarense | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 1 | 3.3333 |
| Sarconeurum glaciale | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | TRUE | 1 | 3.3333 |
| Umbilicaria aprina | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 3.3333 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 1 | 3.3333 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Lecanorid, Nematodes, lichens\_Parmelid, mosses\_Dicranales, mites\_Sarcoptiformes, mosses\_Pottiales, Springtails\_slim, mosses\_Bryales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, penguins\_Chinstrap, lichens\_Cladonid, mites\_Mesostigmata, penguins\_Gentoo and lichens\_Stereocaulid than the rest of the continent.

Unit env4\_sdm1 is higher in suitability for lichens\_Parmelid, lichens\_Rhizocarpid, lichens\_Candelarid, mites\_Mesostigmata, mites\_Sarcoptiformes, lichens\_Teloschistid and lichens\_Lecanorid and lower in suitability for mosses\_Bryales, lichens\_Cladonid and lichens,\_Bacidiacid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

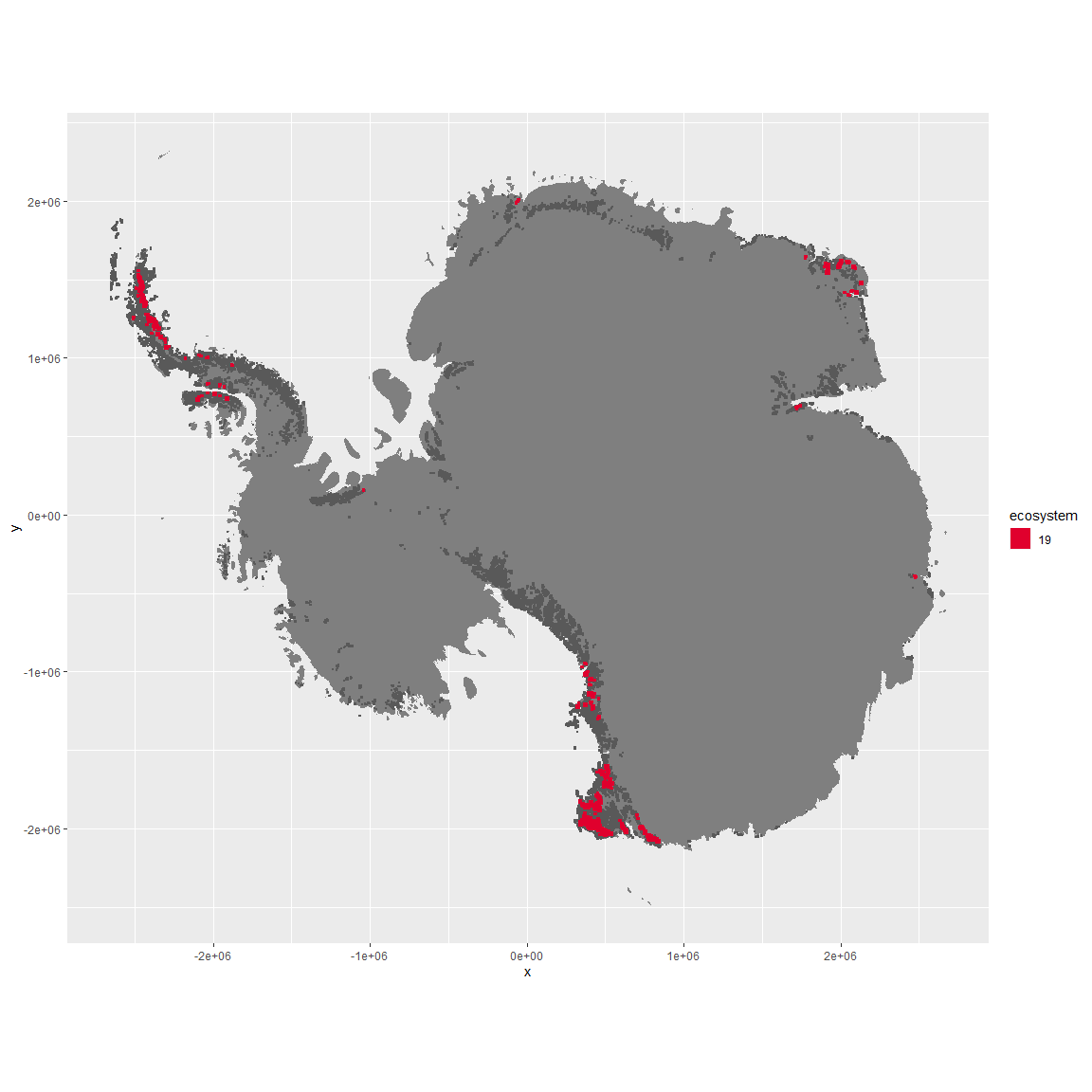
## Ecosystem Env4\_sdm2, Sheltered upper slopes and inclined plateaus

Env4\_sdm2, Sheltered upper slopes and inclined plateaus. Occurs mainly on the eastern coast of the northern peninsula and in Victoria Land. This unit is on the milder end of the group, with more ruggedness and cloud and less wind/higher temp than the group average, though still high radiation. Most sampled faunas are Rotifers, though singletons of various other groups have been detected. Suitability appears to be especially low for many lichen functional groups (but high for Cladoniaceae and Bacidiaceae) and Trombidiformes (Arachnids) and high for chinstrap penguins and several moss groups.

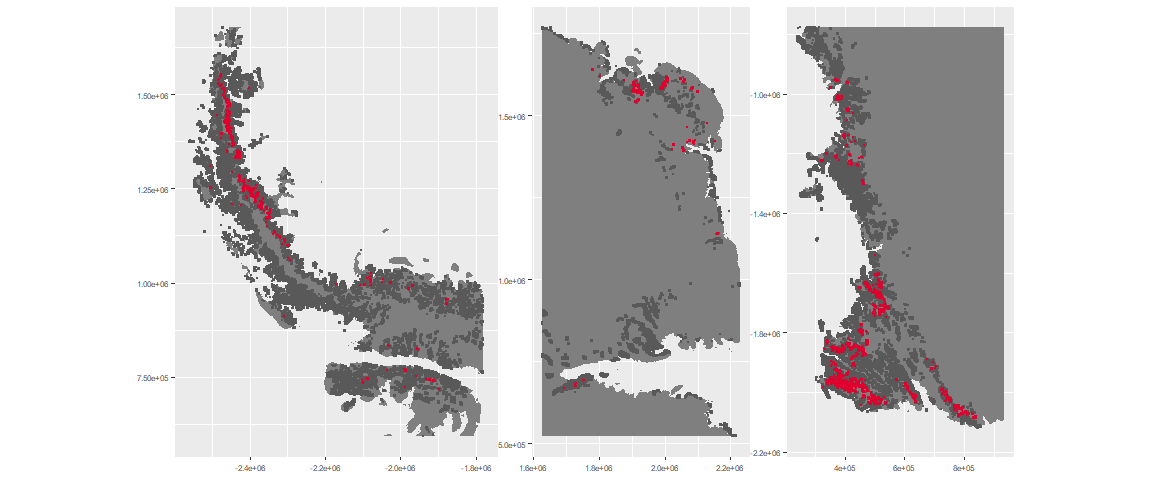
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

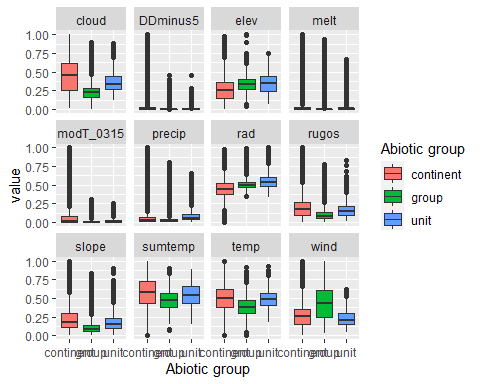
The unit env4\_sdm2 is part of the environmental supergroup env4.

This supergroup is, on average, substantially higher in wind, elev and rad than continental antarctica. It is substantially lower in rugos, sumtemp, slope, temp and cloud than the rest of the continent.

The elevation of unit env4\_sdm2 ranges from 230 to 3472 metres above sea level, but 90% of its pixels fall above 678 and below 2777 metres. Its average elevation is 1669 metres.

The unit is higher in cloud, temp, slope, sumtemp, rugos, rad and precip and lower in wind than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

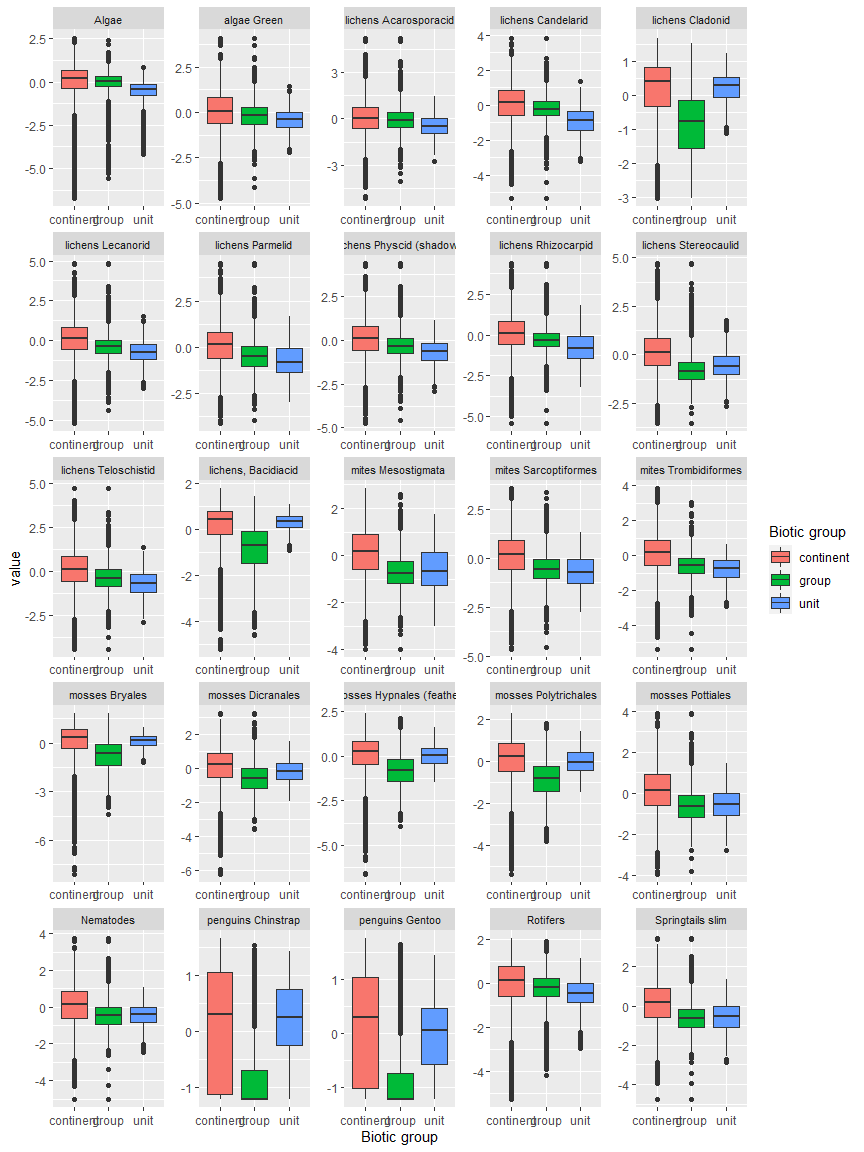
The top most widespread species in ecosystem env4\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Adineta gracilis | Rotifera\_\_\_\_\_ | Rotifera | FALSE | 1 | 2.6316 |
| Adineta steineri | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.6316 |
| Adineta vaga | Rotifera\_\_\_\_\_ | Rotifera | FALSE | 1 | 2.6316 |
| Andreaea depressinervis | Bryophyta\_Andreaeopsida\_Andreaeales\_\_\_ | Bryophyta | TRUE | 1 | 2.6316 |
| Aphanocapsa elachista | Cyanophycota\_\_\_\_\_ | Cyanophycota | FALSE | 1 | 2.6316 |
| Bacidia harrissoni | Ascomycota\_Lecanoromycetes\_Lecanorales\_Ramalinaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Campylopus pyriformis | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 1 | 2.6316 |
| Catillaria inconspicua | Ascomycota\_Lecanoromycetes\_Lecanorales\_Catillariaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Cephaloziella exiliflora | Marchantiophyta\_\_\_\_\_ | Marchantiophyta | FALSE | 1 | 2.6316 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 1 | 2.6316 |
| Chlorella sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 2.6316 |
| Coenochloris oleifera | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 2.6316 |
| Corythion dubium | Cercozoa\_\_\_\_\_ | Cercozoa | TRUE | 1 | 2.6316 |
| Drepanocladus uncinatus | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | TRUE | 1 | 2.6316 |
| Gloeocapsa magma | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.6316 |
| Graesiella emersonii | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 2.6316 |
| Habrotrocha elusa | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.6316 |
| Hassallia bouteillei | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 2.6316 |
| Huea smaragdula | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Hygroamblystegium filum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 2.6316 |
| Macrobiotus ?fuciger | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 2.6316 |
| Macrobiotus sp. | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 2.6316 |
| Macrotrachela ambigua | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.6316 |
| Macrotrachela cf. ligulata | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.6316 |
| Mastigocladus laminosus | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.6316 |
| Mniobia sp. | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.6316 |
| Phormidium fragile | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.6316 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 1 | 2.6316 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 1 | 2.6316 |
| Pseudococcomyxa simplex | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 2.6316 |
| Rhizocarpon adarense | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Rhizocarpon copelandii | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | FALSE | 1 | 2.6316 |
| Rhizocarpon sp. | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Stereocaulon vesuvianum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 1 | 2.6316 |
| Stigonema ocellatum | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.6316 |
| Toninia johnstonii | Ascomycota\_Lecanoromycetes\_Rhizocarpales\_Catillariaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 1 | 2.6316 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 1 | 2.6316 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Lecanorid, Nematodes, lichens\_Parmelid, mosses\_Dicranales, mites\_Sarcoptiformes, mosses\_Pottiales, Springtails\_slim, mosses\_Bryales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, penguins\_Chinstrap, lichens\_Cladonid, mites\_Mesostigmata, penguins\_Gentoo and lichens\_Stereocaulid than the rest of the continent.

Unit env4\_sdm2 is higher in suitability for lichens,*Bacidiacid, lichens\_Cladonid, penguins\_Chinstrap, mosses\_Bryales, penguins\_Gentoo, mosses\_Hypnales*(feather), mosses\_Polytrichales and mosses\_Dicranales and lower in suitability for lichens\_Physcid\_(shadow), lichens\_Teloschistid, lichens\_Lecanorid, lichens\_Acarosporacid, lichens\_Rhizocarpid, Algae and lichens\_Candelarid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env4\_sdm3, Clear windy plateaus

Env4\_sdm3, Clear windy plateaus. Occurs mainly in Victoria land, Enderby Land and in the Prince Charles mountains. Its elevation is lower than the rest of the group, but it is especially windy and low in cloud cover (radians are not especially high for the group, possibly due to aspect? East, west, and south-facing slopes?). Sampled biota are exclusively lichens. Though the group has lower suitability than the continental average for all functional groups, this unit nonetheless has higher-than-average suitability for Ochrophytes, Rotifers, and Acarosporaceae lichens.

### Photos (if available)



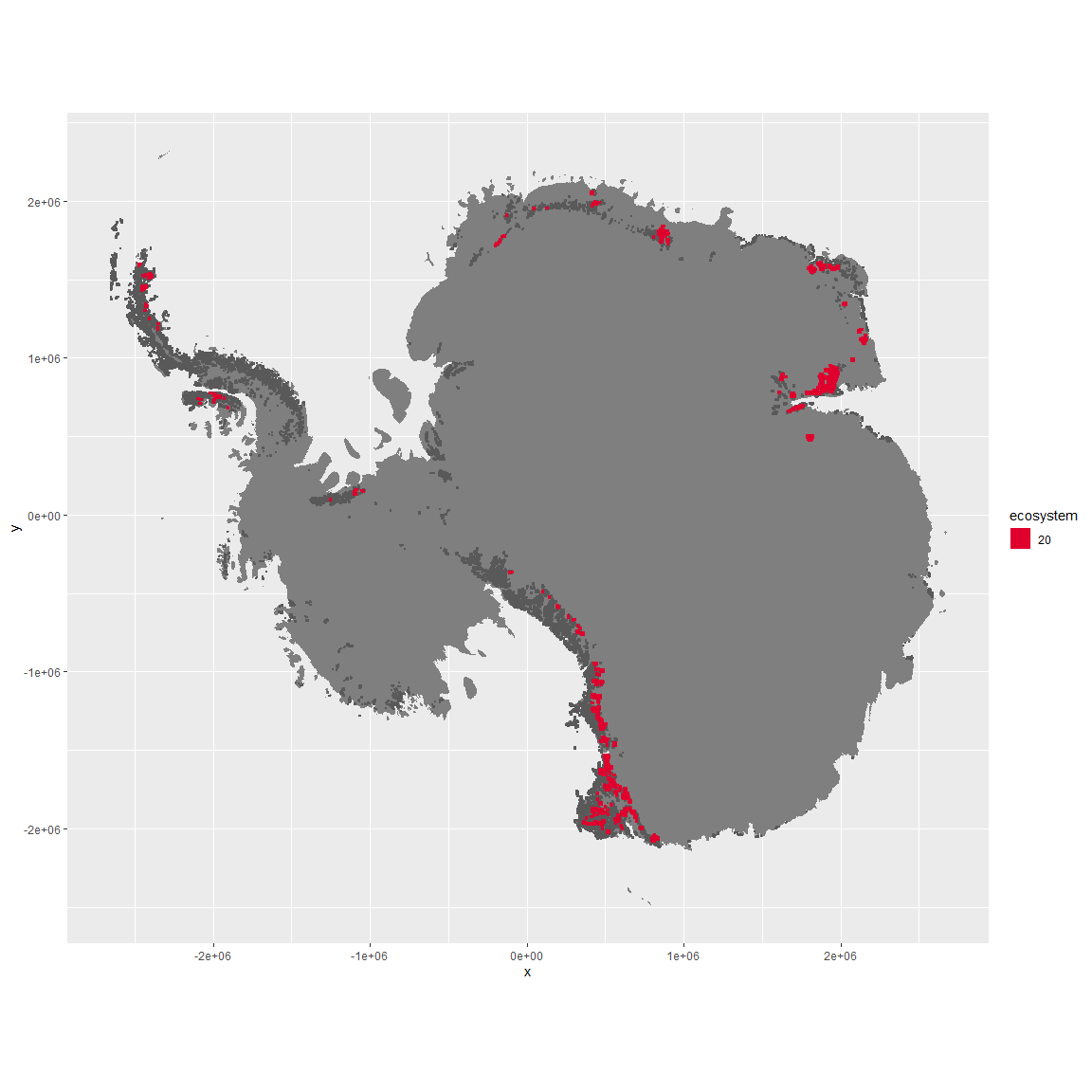
Ecosystem photo



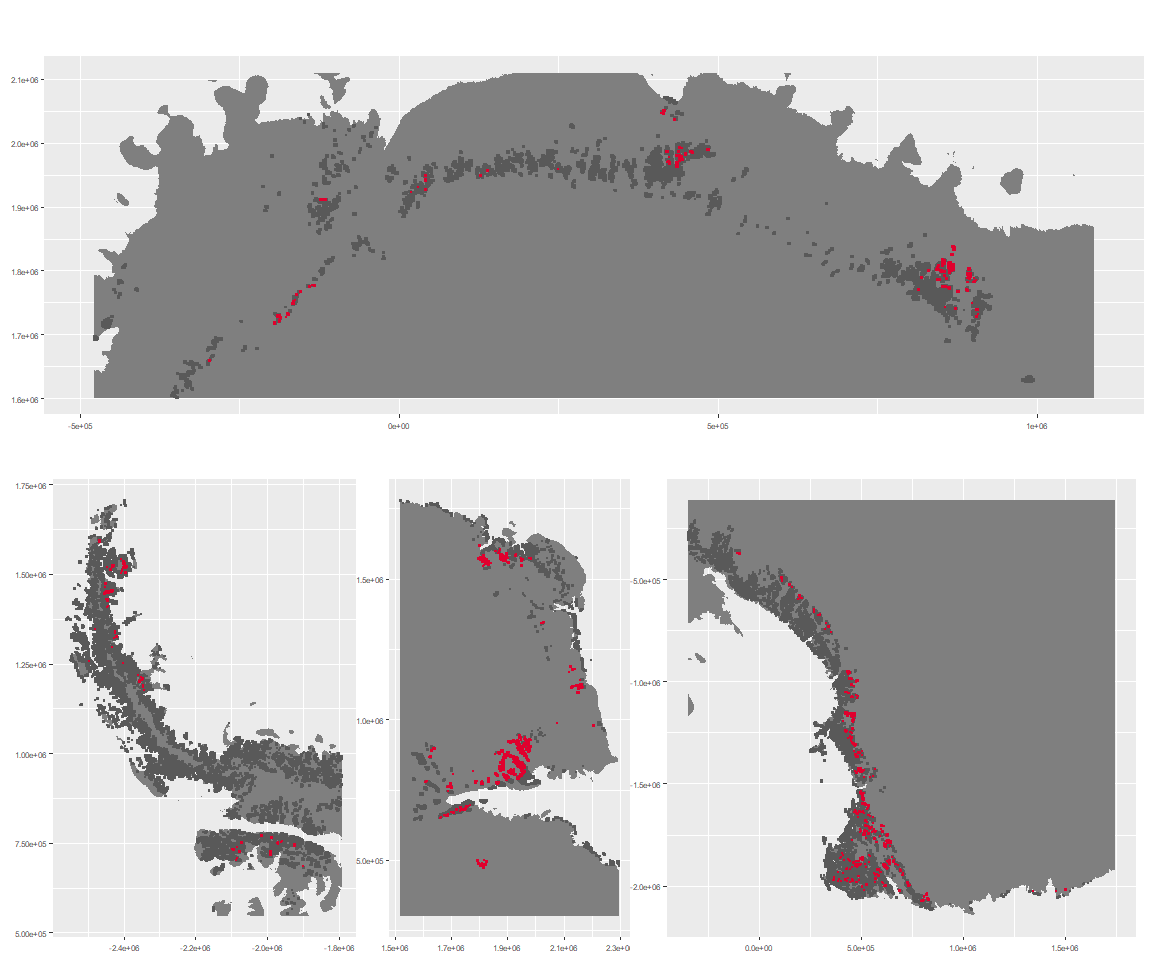
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

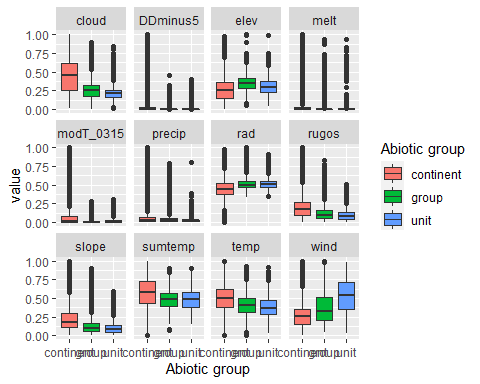
The unit env4\_sdm3 is part of the environmental supergroup env4.

This supergroup is, on average, substantially higher in wind, elev and rad than continental antarctica. It is substantially lower in rugos, sumtemp, slope, temp and cloud than the rest of the continent.

The elevation of unit env4\_sdm3 ranges from 0 to 4700 metres above sea level, but 90% of its pixels fall above 676 and below 2357 metres. Its average elevation is 1405 metres.

The unit is higher in wind and lower in elev and cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

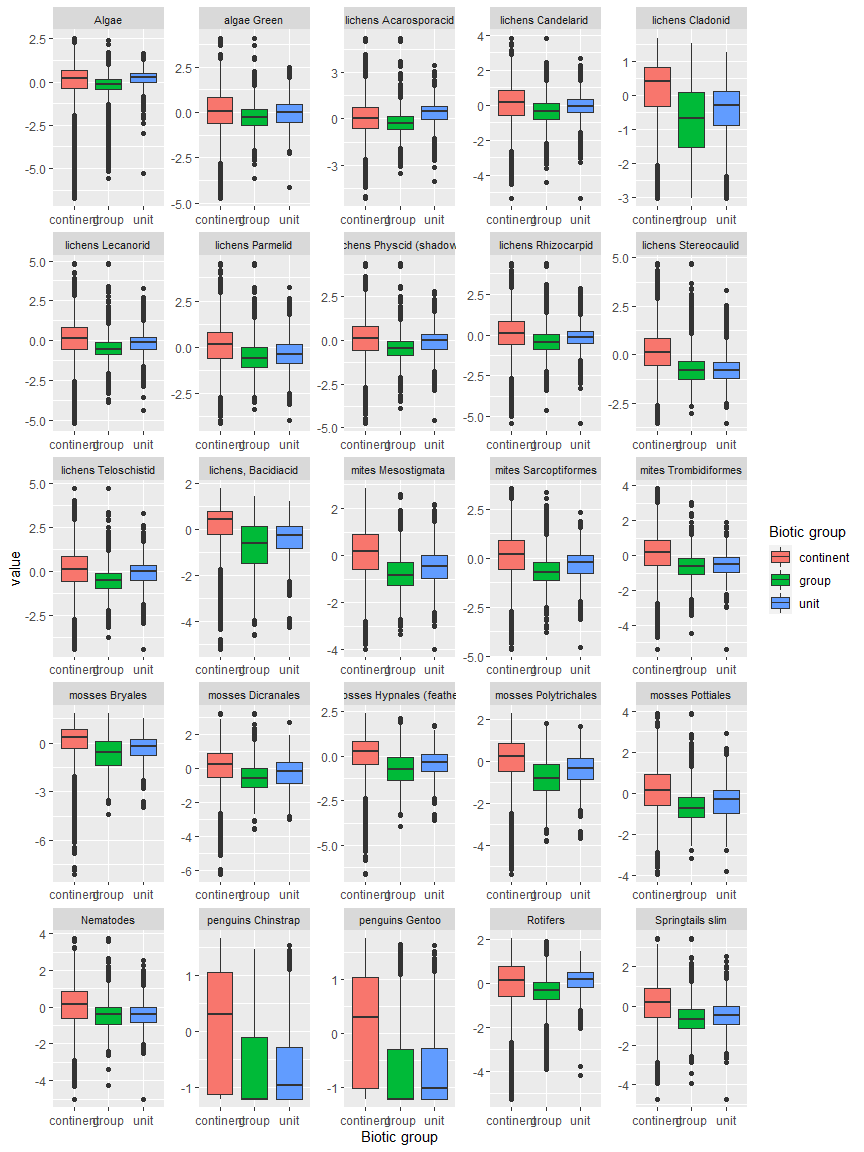
The top most widespread species in ecosystem env4\_sdm3

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 5 | 9.2593 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 5 | 9.2593 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 3 | 5.5556 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 3 | 5.5556 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 3 | 5.5556 |
| Lepraria cacuminum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 2 | 3.7037 |
| Rhizocarpon sp. | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 2 | 3.7037 |
| Rhizocarpon superficiale | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | FALSE | 2 | 3.7037 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 3.7037 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 2 | 3.7037 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 2 | 3.7037 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Lecanorid, Nematodes, lichens\_Parmelid, mosses\_Dicranales, mites\_Sarcoptiformes, mosses\_Pottiales, Springtails\_slim, mosses\_Bryales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, penguins\_Chinstrap, lichens\_Cladonid, mites\_Mesostigmata, penguins\_Gentoo and lichens\_Stereocaulid than the rest of the continent.

Unit env4\_sdm3 is higher in suitability for lichens\_Acarosporacid, Rotifers, Algae, lichens\_Teloschistid, lichens\_Physcid\_(shadow), mosses\_Bryales, lichens\_Lecanorid, mosses\_Polytrichales and lichens\_Cladonid and lower in suitability for no variables than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

## Ecosystem Env4\_sdm4, Clear sheltered plateaus

Env4\_sdm4, Clear sheltered plateaus. Mainly occurs in Victoria land with some representation on the eastern coast of the northern peninsula. Unit is lower in cloud and wind than the rest of its group (likely also south-facing?), so a milder version. Sampled biota is scarce and consists mainly of singletons. Most are lichens and cyanobacteria, along with some Ochrophyta and mosses. Suitability above group average but still below continental average for Ochrophyta, Rotifera, Nematoda, and Trombidiformes.

### Photos (if available)



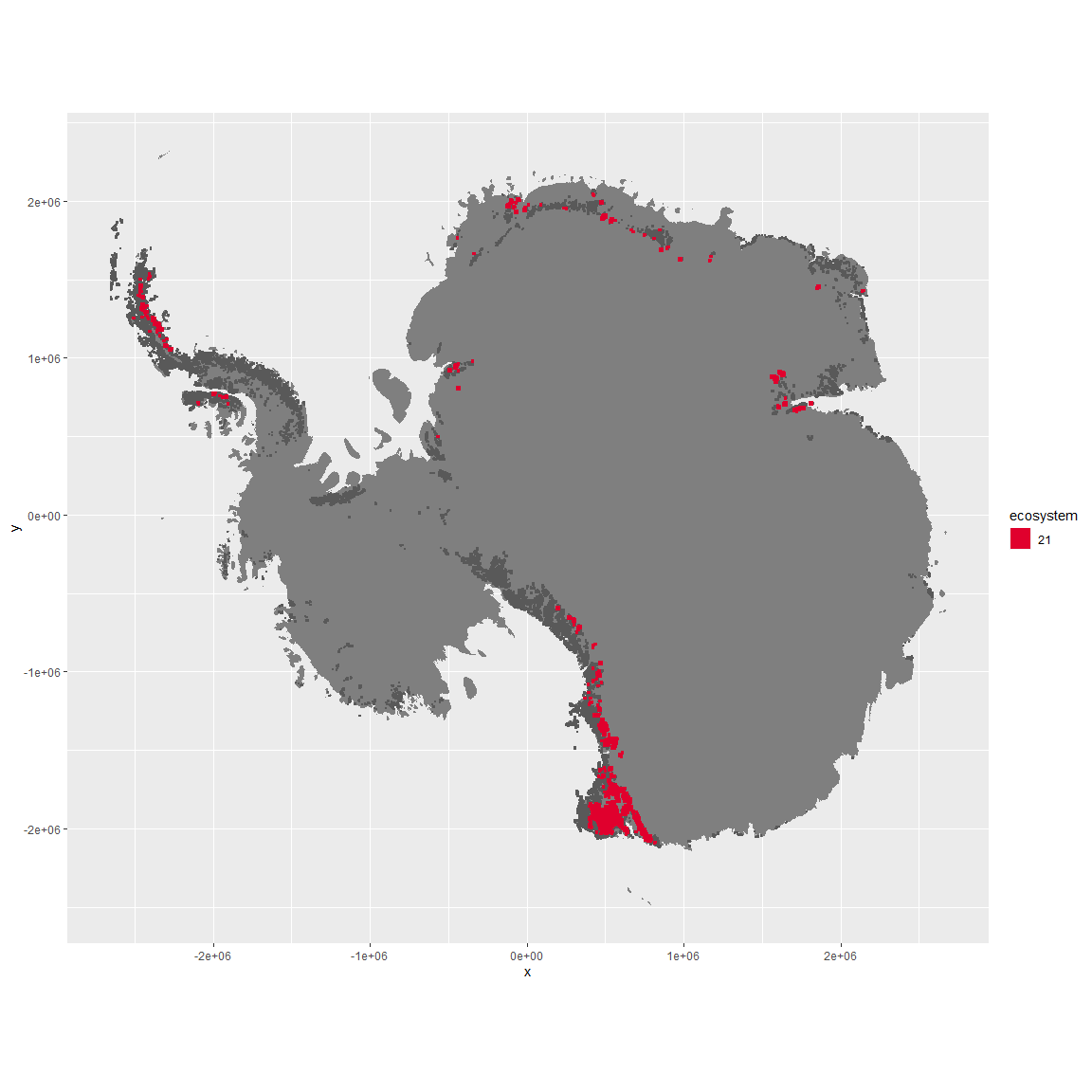
Ecosystem photo



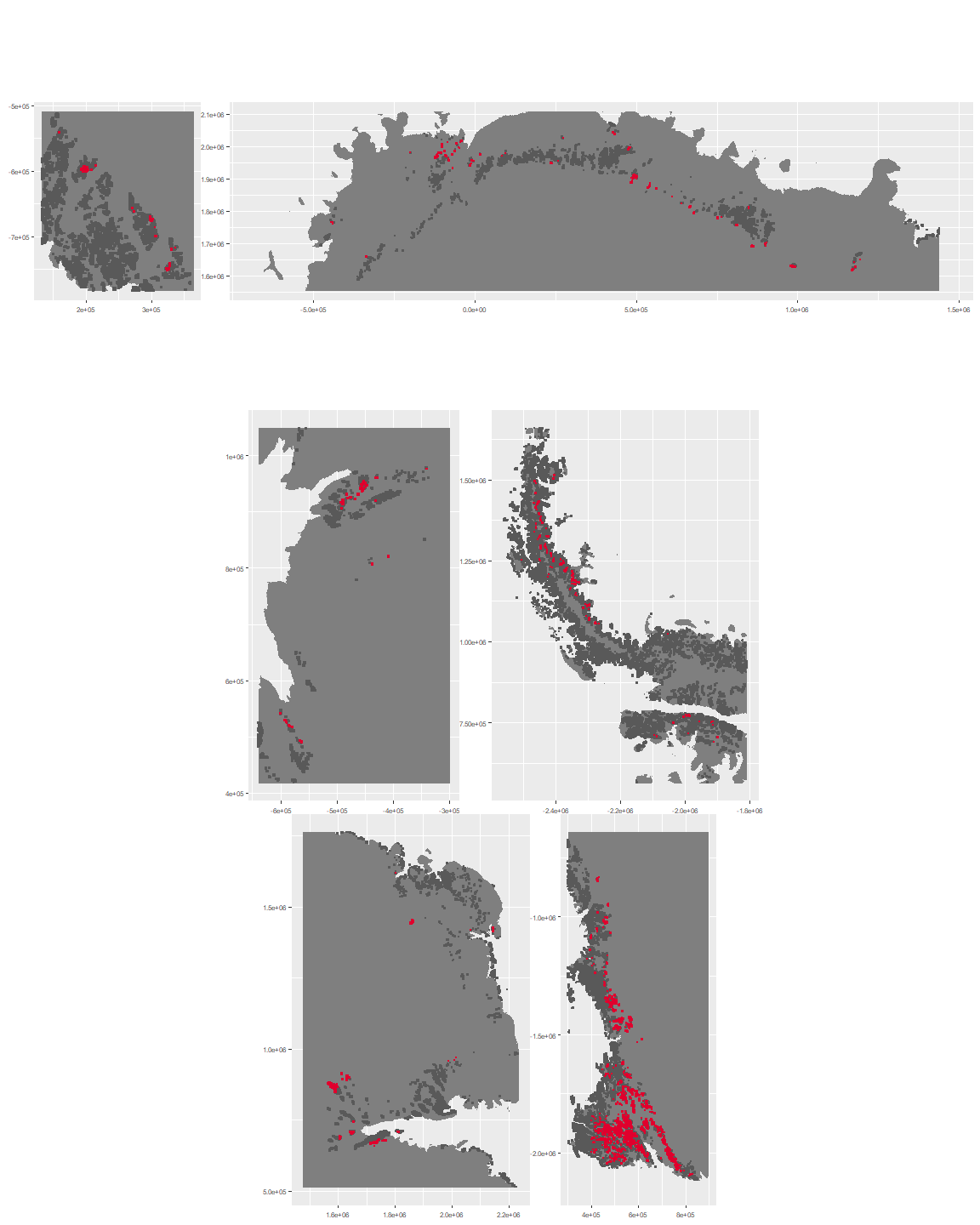
Ecosystem photo

### Distribution

Maps - Full map



Regional maps



### Environment

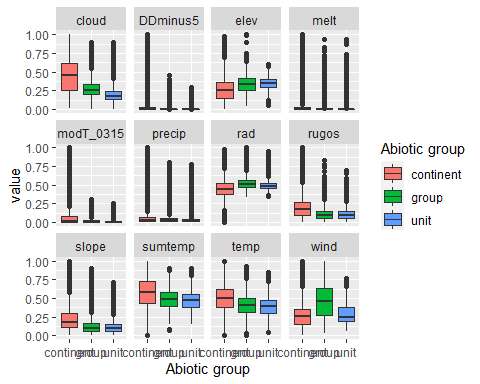
The unit env4\_sdm4 is part of the environmental supergroup env4.

This supergroup is, on average, substantially higher in wind, elev and rad than continental antarctica. It is substantially lower in rugos, sumtemp, slope, temp and cloud than the rest of the continent.

The elevation of unit env4\_sdm4 ranges from 32 to 2707 metres above sea level, but 90% of its pixels fall above 754 and below 2262 metres. Its average elevation is 1657 metres.

The unit is higher in no variables and lower in cloud and wind than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

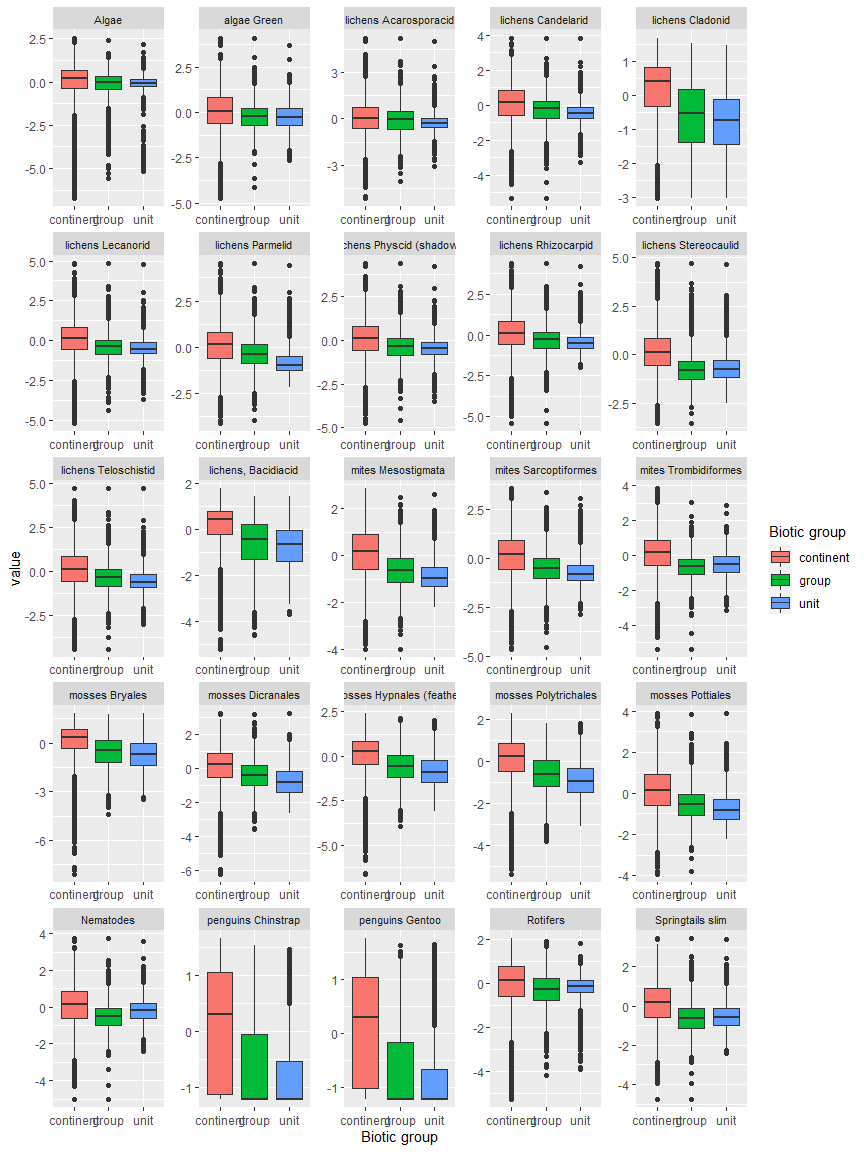
The top most widespread species in ecosystem env4\_sdm4

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Lepraria cacuminum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 2 | 2.8986 |
| Schizothrix antarctica | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 2 | 2.8986 |
| Arthrorhaphis citrinella | Ascomycota\_Lecanoromycetes\_Not assigned\_Arthrorhaphidaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Binuclearia tectorum | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.4493 |
| Brachythecium austroglareosum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 1.4493 |
| Bryum subrotundifolium | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | TRUE | 1 | 1.4493 |
| Buellia pallida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Buellia subfrigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Calothrix braunii | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Calothrix parietina | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Carbonea capsulata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Chlorella minutissima | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Chlorosarcinopsis sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Chlorosphaera kerguelensis | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Choricystis chodatii | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Chroococcus montanus | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Chroococcus westii | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Cladonia cf. pocillum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Cladoniaceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Cryptomonas sp. | Cryptophyta\_\_\_\_\_ | Cryptophyta | TRUE | 1 | 1.4493 |
| Desmococcus olivaceus | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.4493 |
| Diphascon sanae | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 1.4493 |
| Gloeocapsa kuetzingiana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Gloeocapsa magma | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Gloeocapsa ralfsiana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Heterotrichella gracilis | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.4493 |
| Hypnum revolutum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 1 | 1.4493 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Minibiotus stuckenbergi | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 1.4493 |
| Monodus chodatii | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.4493 |
| Nephrodiella semilunaris | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 1 | 1.4493 |
| Nodularia harveyana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Nostoc commune | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Nostoc longstaffii | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Nostoc pruniforme | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Oscillatoria curviceps | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Oscillatoria tenuis | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Pannaria hookeri | Ascomycota\_Lecanoromycetes\_Peltigerales\_Pannariaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Parmelia saxatilis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Phormidium priestleyi | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Placopsis contortuplicata | Ascomycota\_Lecanoromycetes\_Baeomycetales\_Trapeliaceae\_\_ | Ascomycota | TRUE | 1 | 1.4493 |
| Pohlia nutans | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 1 | 1.4493 |
| Polytrichum piliferum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 1 | 1.4493 |
| Prasiococcus calcarius | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Prasiola crispa | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.4493 |
| Pseudephebe pubescens | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Pseudotetraspora gainii | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Rhizocarpon distinctum | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Rhodomonas sp. | Cryptophyta\_\_\_\_\_ | Cryptophyta | TRUE | 1 | 1.4493 |
| Sarconeurum glaciale | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | TRUE | 1 | 1.4493 |
| Scotinosphaera paradoxa | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Stauroneis agrestis | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 1 | 1.4493 |
| Stereocaulon glabrum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Stereocaulon vesuvianum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 1 | 1.4493 |
| Stichococcus bacillaris | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 1 | 1.4493 |
| Synechocystis aquatilis | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Synechocystis crassa | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Synechocystis pevalekii | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 1.4493 |
| Synechocystis sallensis | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 1.4493 |
| Tetracystis sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Tropidoneis laevissima | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.4493 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Umbilicaria umbilicarioides | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |
| Vitreochlamys sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 1.4493 |
| Xanthonema antarcticum | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 1 | 1.4493 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 1 | 1.4493 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Lecanorid, Nematodes, lichens\_Parmelid, mosses\_Dicranales, mites\_Sarcoptiformes, mosses\_Pottiales, Springtails\_slim, mosses\_Bryales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, penguins\_Chinstrap, lichens\_Cladonid, mites\_Mesostigmata, penguins\_Gentoo and lichens\_Stereocaulid than the rest of the continent.

Unit env4\_sdm4 is higher in suitability for Nematodes and lower in suitability for mosses\_Polytrichales, mosses\_Hypnales\_(feather), mosses\_Dicranales and lichens\_Parmelid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

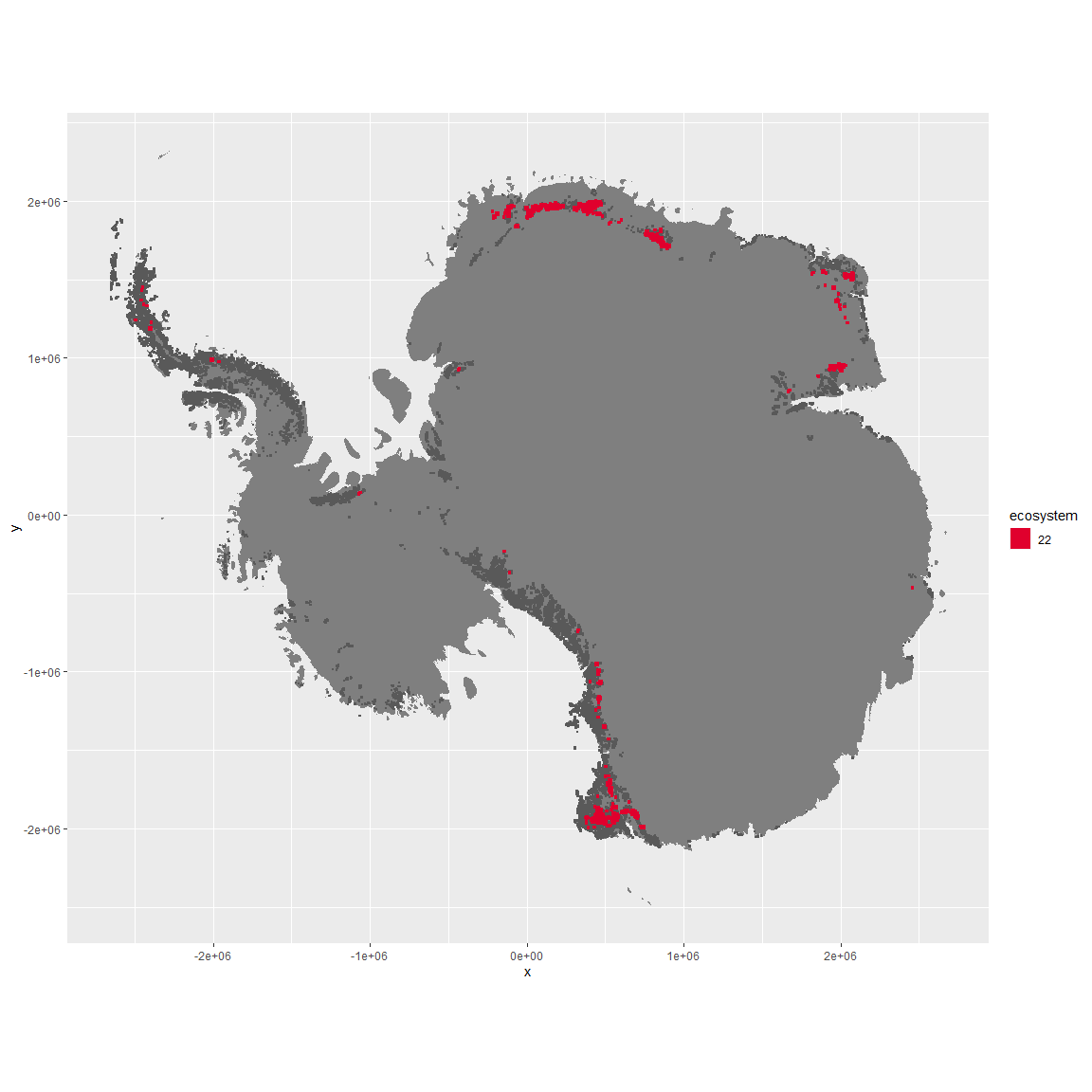
## Ecosystem Env4\_sdm5, High windy plateaus

Env4\_sdm5, High windy plateaus. Mainly occurs in Victoria land and Dronning Maud land. Unit is higher elevation, wind, and radiation than the rest of the group, plus lower temp and lower ruggedness. Extremely low sampling but most are Athropods. Suitability is lower than group average for all functional groups except Parmeliaceae lichens, and especially bad for penguins.

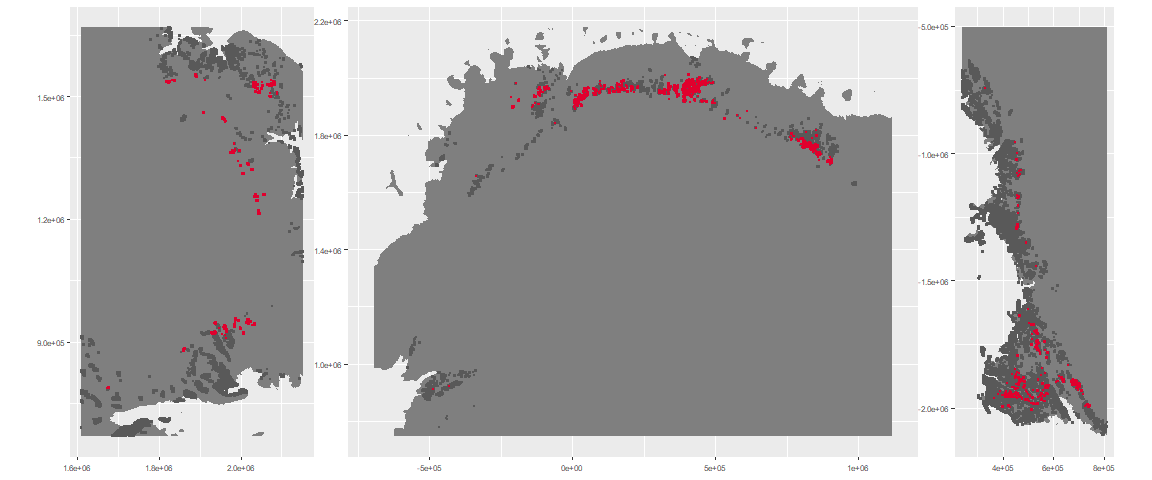
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

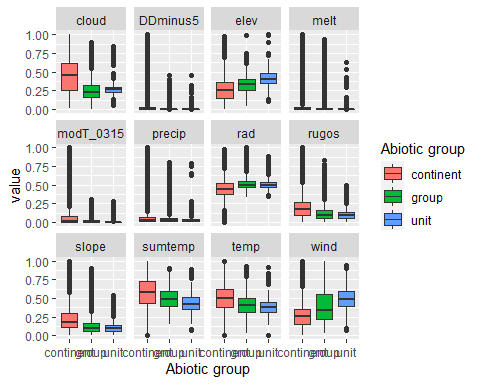
The unit env4\_sdm5 is part of the environmental supergroup env4.

This supergroup is, on average, substantially higher in wind, elev and rad than continental antarctica. It is substantially lower in rugos, sumtemp, slope, temp and cloud than the rest of the continent.

The elevation of unit env4\_sdm5 ranges from 498 to 4645 metres above sea level, but 90% of its pixels fall above 1261 and below 2600 metres. Its average elevation is 1914 metres.

The unit is higher in wind and elev and lower in sumtemp than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

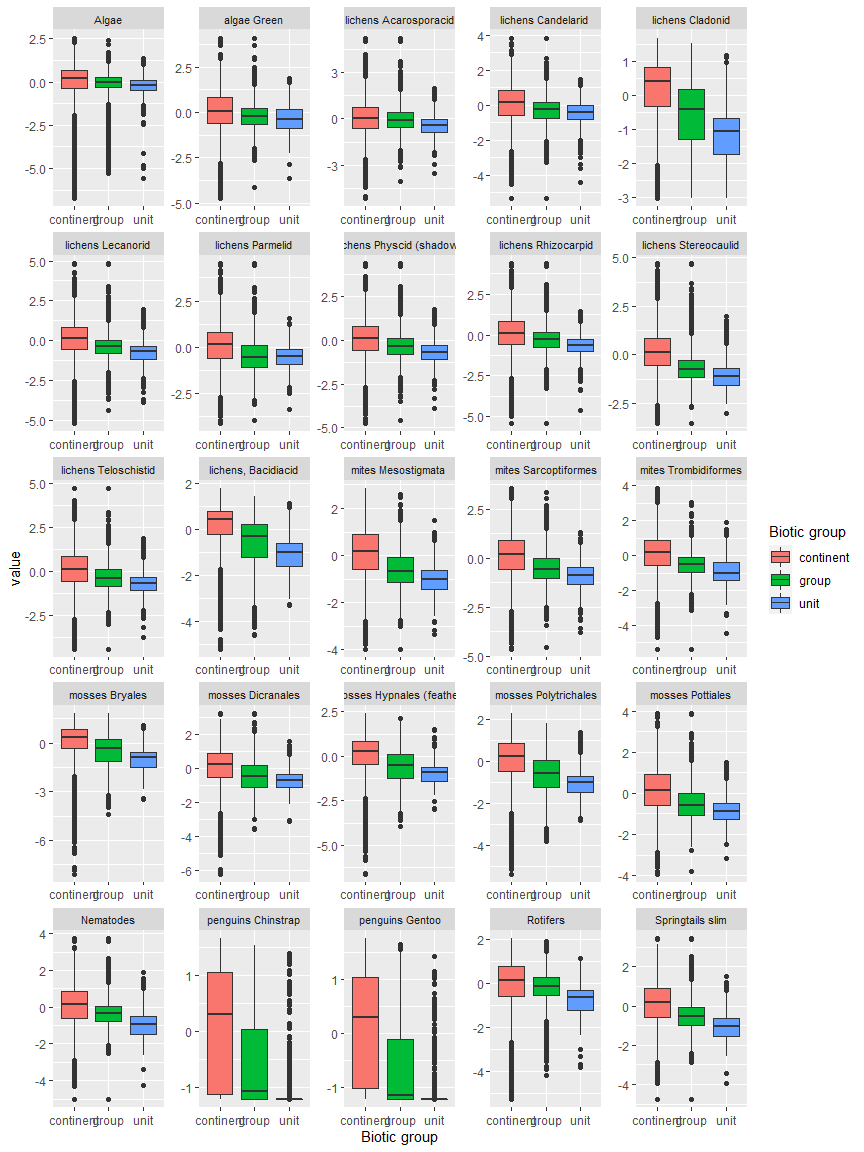
The top most widespread species in ecosystem env4\_sdm5

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Cryptopygus sverdrupi | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 1 | 25 |
| Maudheimia wilsoni | Arthropoda\_Arachnida\_Sarcoptiformes\_\_\_ | Arthropoda | TRUE | 1 | 25 |
| Nanorchestes antarcticus | Arthropoda\_Arachnida\_Sarcoptiformes\_\_\_ | Arthropoda | TRUE | 1 | 25 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 1 | 25 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Lecanorid, Nematodes, lichens\_Parmelid, mosses\_Dicranales, mites\_Sarcoptiformes, mosses\_Pottiales, Springtails\_slim, mosses\_Bryales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), lichens,\_Bacidiacid, mosses\_Polytrichales, penguins\_Chinstrap, lichens\_Cladonid, mites\_Mesostigmata, penguins\_Gentoo and lichens\_Stereocaulid than the rest of the continent.

Unit env4\_sdm5 is higher in suitability for no variables and lower in suitability for lichens\_Rhizocarpid, mosses\_Pottiales, lichens\_Physcid\_(shadow), lichens\_Lecanorid, lichens\_Acarosporacid, mites\_Sarcoptiformes, mites\_Trombidiformes, lichens\_Stereocaulid, mites\_Mesostigmata, mosses\_Hypnales\_(feather), mosses\_Bryales, mosses\_Polytrichales, Springtails\_slim, penguins\_Gentoo, lichens,\_Bacidiacid, Rotifers, penguins\_Chinstrap, Nematodes and lichens\_Cladonid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

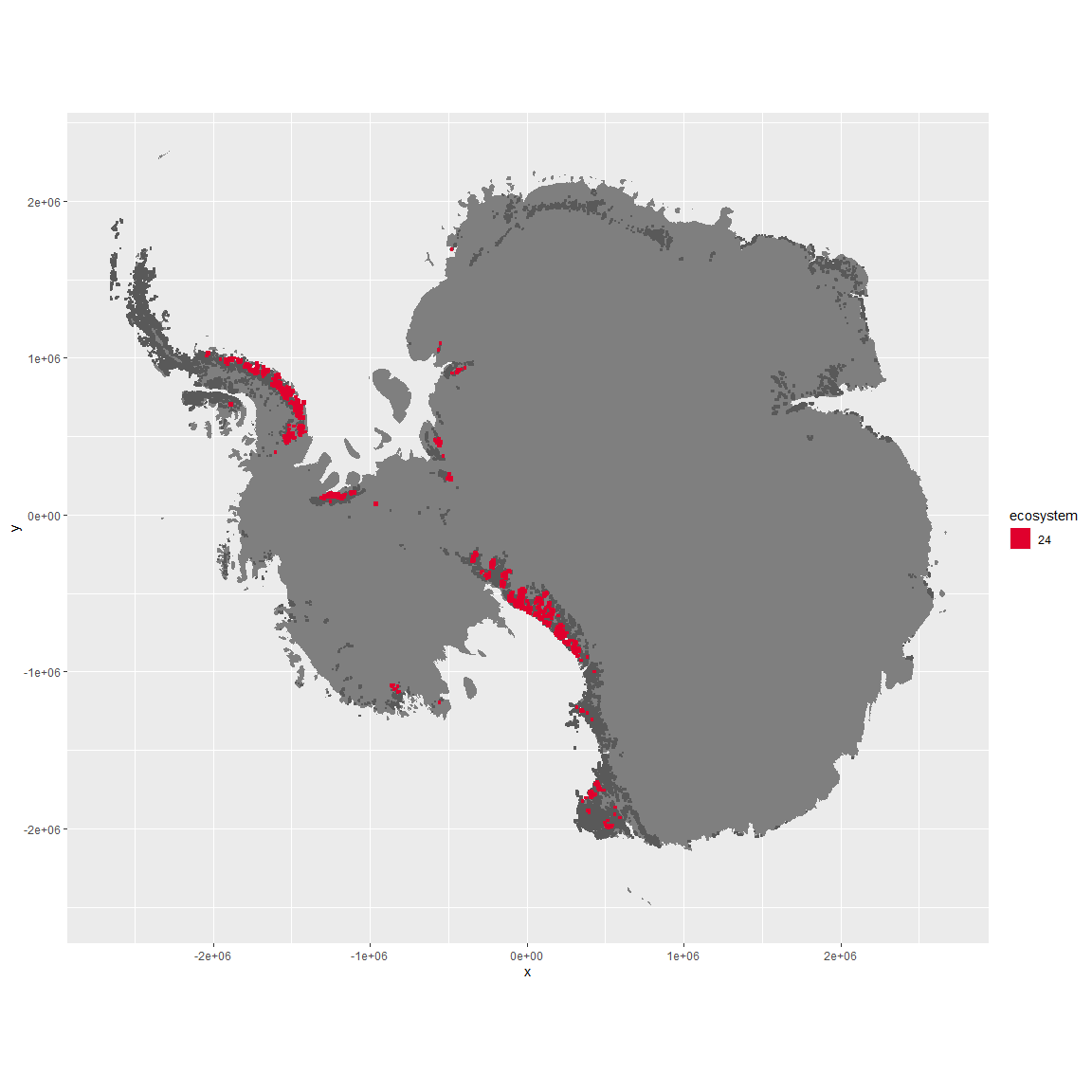
## Ecosystem Env5\_sdm1, Mild-climate arid nunataks

Env5\_sdm1, Mild-climate arid nunataks. Occurs mainly along the east coast of the southern peninsula, in the Ellsworth mountains, throughout the Transantarctic mountains, and in North Victoria Land. This unit is a mild version of its group, with lower elev and higher temps than the rest of the group. Sampled fauna consists exclusively of lichens. Unit is separated from its group more by suitability; group has low suitability for all functional groups except Ochrophytes, but the unit has exceptionally high suitability for all lichens except Cladoniaceae and Bacidiaceae (for these latter two conditions are only slightly better than usual); all Arthropoda functional groups, and Pottiales mosses.

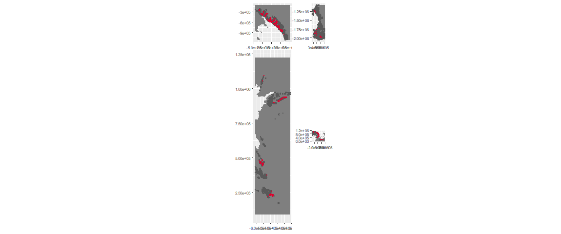
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

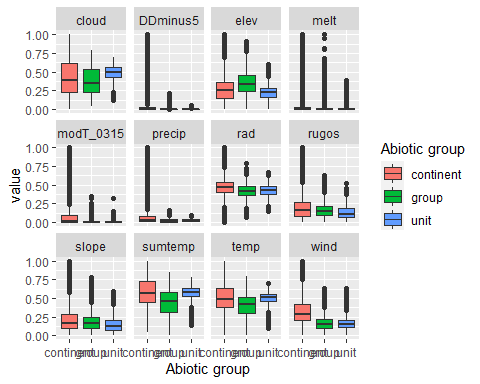
The unit env5\_sdm1 is part of the environmental supergroup env5.

This supergroup is, on average, substantially higher in elev than continental antarctica. It is substantially lower in modT\_0315, rad, precip, temp, sumtemp and wind than the rest of the continent.

The elevation of unit env5\_sdm1 ranges from 26 to 3032 metres above sea level, but 90% of its pixels fall above 364 and below 2042 metres. Its average elevation is 1062 metres.

The unit is higher in sumtemp, cloud and temp and lower in elev than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

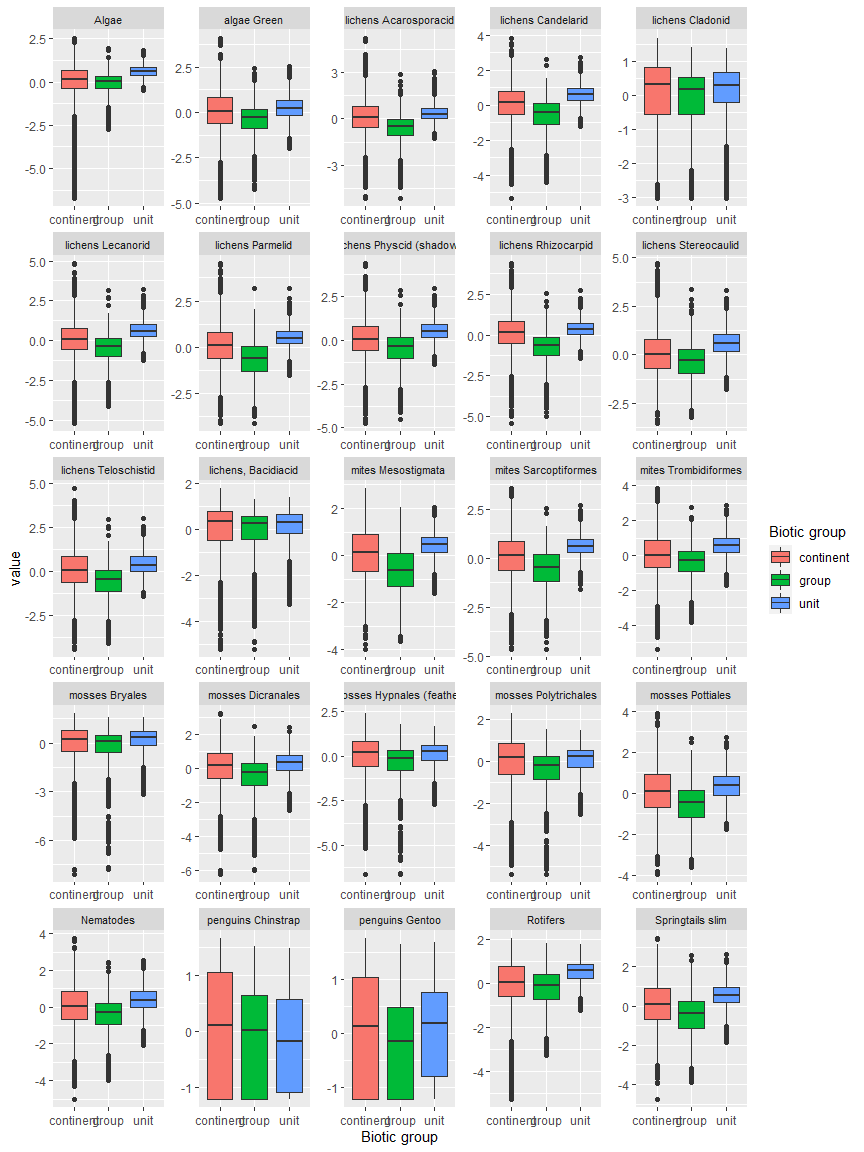
The top most widespread species in ecosystem env5\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 11 | 12.7907 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 8 | 9.3023 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 8 | 9.3023 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 6 | 6.9767 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 6 | 6.9767 |
| Buellia cf. frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 4 | 4.6512 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 3 | 3.4884 |
| Buellia pallida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 3 | 3.4884 |
| Carbonea vorticosa | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 3 | 3.4884 |
| Buellia grisea | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 2 | 2.3256 |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 2 | 2.3256 |
| Lepraria sp. | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | TRUE | 2 | 2.3256 |
| Rhizocarpon sp. | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | TRUE | 2 | 2.3256 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 2.3256 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 2 | 2.3256 |
| Xanthoria cf. mawsonii | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 2 | 2.3256 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Acarosporacid, lichens\_Parmelid, mites\_Mesostigmata and lichens\_Rhizocarpid than the rest of the continent.

Unit env5\_sdm1 is higher in suitability for lichens\_Candelarid, lichens\_Parmelid, mites\_Sarcoptiformes, lichens\_Rhizocarpid, lichens\_Lecanorid, mites\_Mesostigmata, lichens\_Physcid\_(shadow), lichens\_Teloschistid, Springtails\_slim, lichens\_Stereocaulid, mites\_Trombidiformes, lichens\_Acarosporacid, mosses\_Pottiales, Nematodes, Rotifers, mosses\_Dicranales, Algae, algae\_Green, mosses\_Polytrichales, mosses\_Hypnales\_(feather) and mosses\_Bryales and lower in suitability for no variables than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

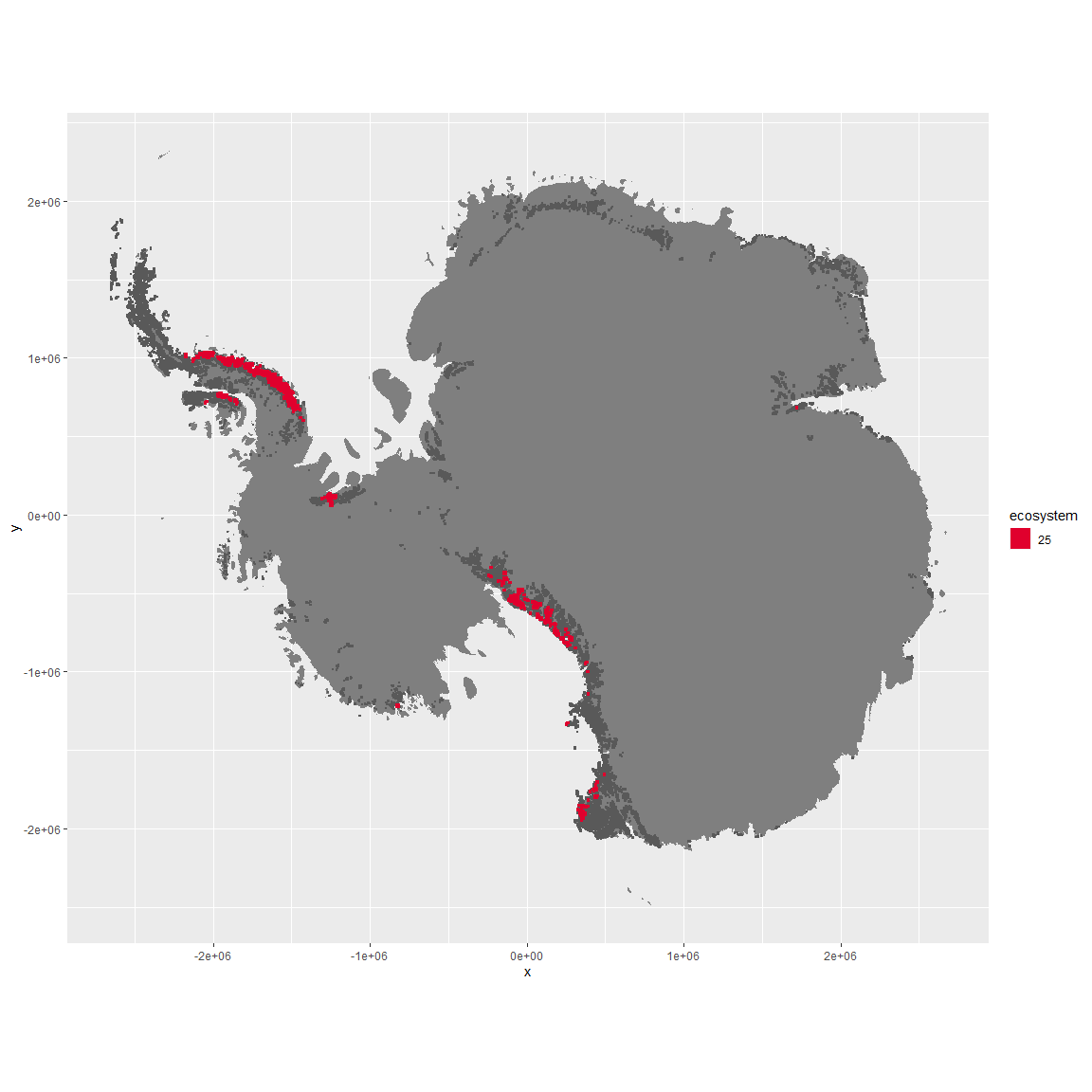
## Ecosystem Env5\_sdm2, Mild mesic coastal nunataks

Env5\_sdm2, Mild mesic coastal nunataks. Occurs mainly along the east coast of the southern peninsula, throughout the Transantarctic mountains, and in North Victoria Land. Very similar to previous unit environmentally but has higher moisture availability (cloud, melt, precip) and insolation. Main sampled biota consists of lichens and mosses. Suitability again separates this unit from its group and the previous unit; it has highest suitability for penguins, Cladoniaceae and Bacidaceae lichens, and several functional groups of mosses.

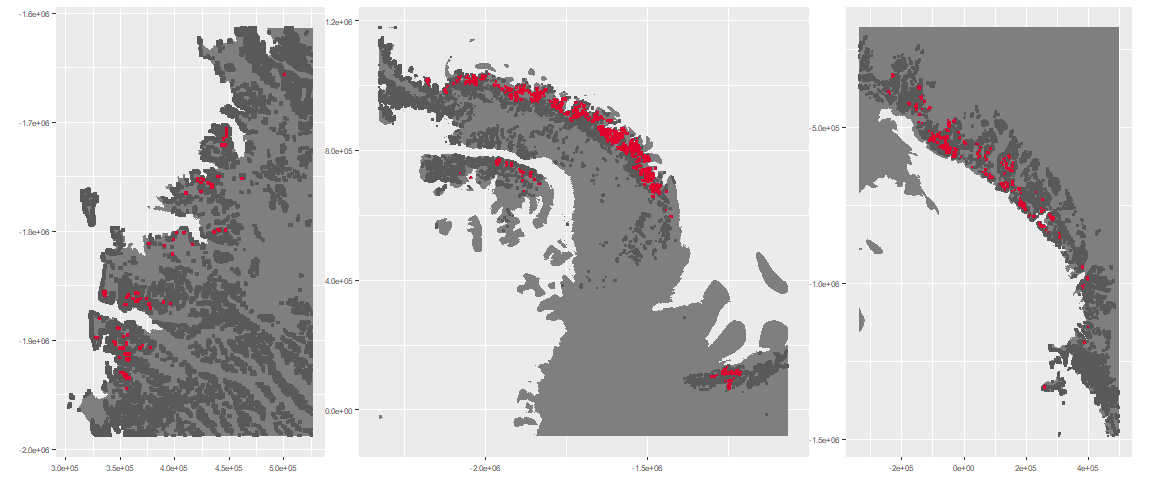
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

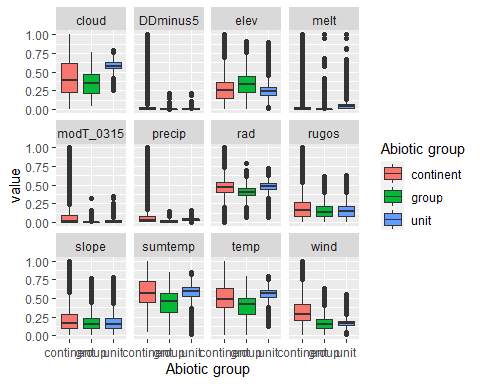
The unit env5\_sdm2 is part of the environmental supergroup env5.

This supergroup is, on average, substantially higher in elev than continental antarctica. It is substantially lower in modT\_0315, rad, precip, temp, sumtemp and wind than the rest of the continent.

The elevation of unit env5\_sdm2 ranges from 135 to 4231 metres above sea level, but 90% of its pixels fall above 651 and below 2735 metres. Its average elevation is 1310 metres.

The unit is higher in cloud, temp, sumtemp, rad and melt and lower in elev than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

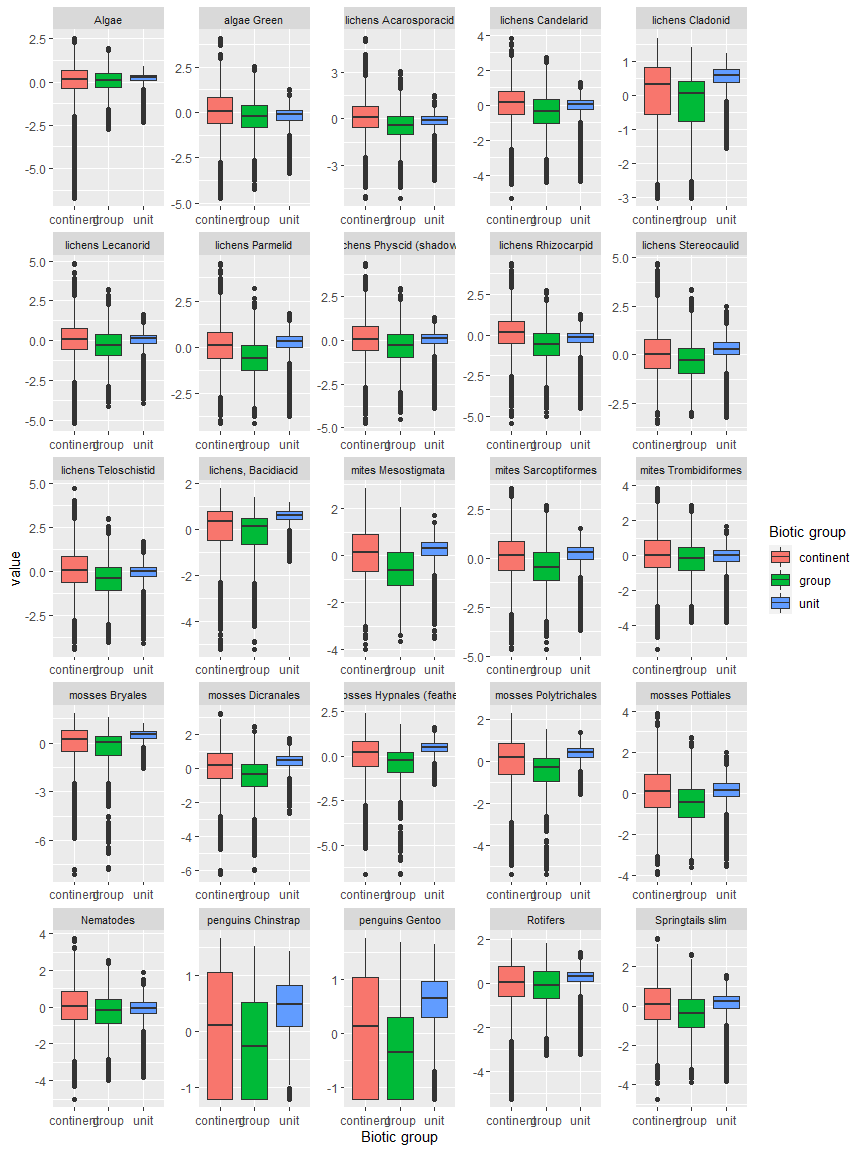
The top most widespread species in ecosystem env5\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 14 | 10.0719 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 8 | 5.7554 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 6 | 4.3165 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 4 | 2.8777 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 4 | 2.8777 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 3 | 2.1583 |
| Physcia caesia | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 3 | 2.1583 |
| Candelariella vitellina | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | FALSE | 2 | 1.4388 |
| Lecanora cf. orosthea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.4388 |
| Lecanora cf. physciella | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 2 | 1.4388 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 1.4388 |
| Lecidea cf. cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 1.4388 |
| Lepraria cacuminum | Ascomycota\_Lecanoromycetes\_Lecanorales\_Stereocaulaceae\_\_ | Ascomycota | FALSE | 2 | 1.4388 |
| Pannaria hookeri | Ascomycota\_Lecanoromycetes\_Peltigerales\_Pannariaceae\_\_ | Ascomycota | FALSE | 2 | 1.4388 |
| Pleopsidium chlorophanum | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | FALSE | 2 | 1.4388 |
| Pohlia cruda | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 2 | 1.4388 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 2 | 1.4388 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 2 | 1.4388 |
| Tortella alpicola | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 2 | 1.4388 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Acarosporacid, lichens\_Parmelid, mites\_Mesostigmata and lichens\_Rhizocarpid than the rest of the continent.

Unit env5\_sdm2 is higher in suitability for mosses\_Hypnales\_(feather), penguins\_Gentoo, mosses\_Polytrichales, mosses\_Dicranales, lichens\_Cladonid, lichens,*Bacidiacid, lichens\_Parmelid, mosses\_Bryales, mites\_Mesostigmata, penguins\_Chinstrap, mosses\_Pottiales, lichens\_Stereocaulid, mites\_Sarcoptiformes, Springtails\_slim, lichens\_Teloschistid and lichens\_Physcid*(shadow) and lower in suitability for no variables than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

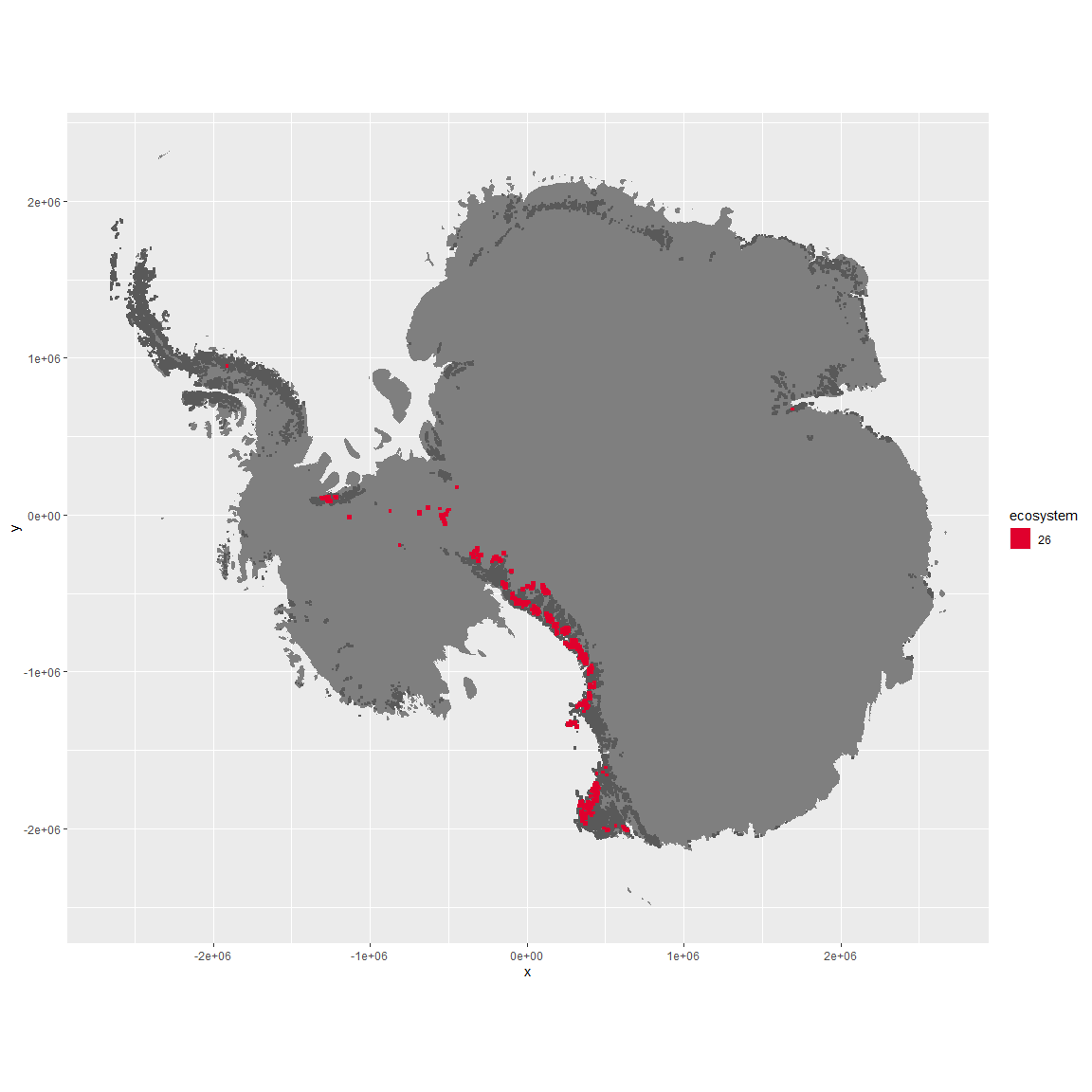
## Ecosystem Env5\_sdm3, High sheltered mountain slopes

Env5\_sdm3, High sheltered mountain slopes. Occurs mainly throughout the Transantarctic mountains and in North Victoria Land. This unit has higher elev/ruggedness and colder temps than the rest of its group, constituting a more extreme example of the group. Sampled fauna mostly Cyanobacteria and Chlorophyta. Suitability is bad for everything, but slightly less bad for Cladoniaceae and Bacidiaceaelichens.

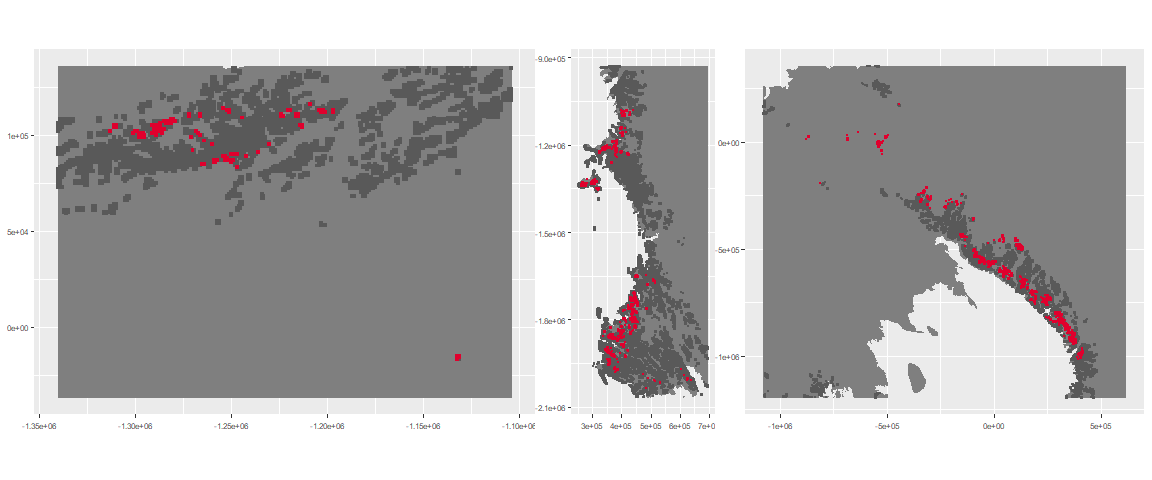
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

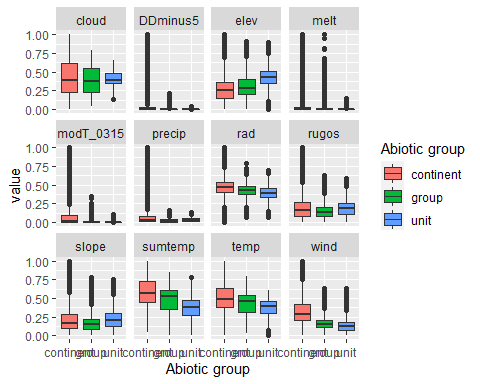
The unit env5\_sdm3 is part of the environmental supergroup env5.

This supergroup is, on average, substantially higher in elev than continental antarctica. It is substantially lower in modT\_0315, rad, precip, temp, sumtemp and wind than the rest of the continent.

The elevation of unit env5\_sdm3 ranges from 55 to 4338 metres above sea level, but 90% of its pixels fall above 1253 and below 3090 metres. Its average elevation is 2124 metres.

The unit is higher in elev, slope and rugos and lower in temp and sumtemp than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

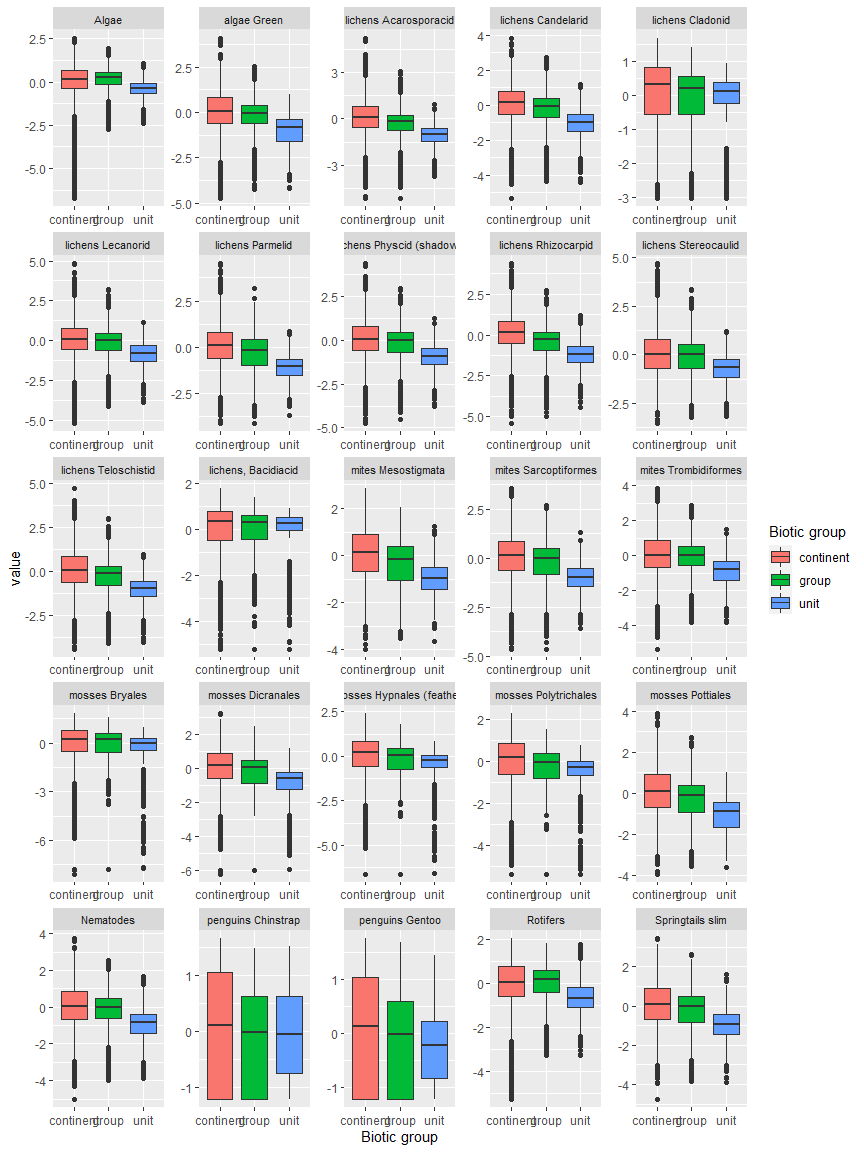
The top most widespread species in ecosystem env5\_sdm3

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Auxenochlorella┬á protothecoides | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Chloroidium saccharophilum | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 2 | 3.3333 |
| Coccomyxa curvata | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Coccomyxa gloeobotrydiformis | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Coelastrella terrestris | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Elliptochloris subsphaerica┬á | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Graesiella emersonii | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 2 | 3.3333 |
| Mastigocladus laminosus | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 2 | 3.3333 |
| Pseudococcomyxa simplex | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 3.3333 |
| Rhizocarpon geographicum | Ascomycota\_Lecanoromycetes\_Not assigned\_Rhizocarpaceae\_\_ | Ascomycota | FALSE | 2 | 3.3333 |
| Sarconeurum glaciale | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | TRUE | 2 | 3.3333 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Acarosporacid, lichens\_Parmelid, mites\_Mesostigmata and lichens\_Rhizocarpid than the rest of the continent.

Unit env5\_sdm3 is higher in suitability for no variables and lower in suitability for lichens\_Cladonid, lichens,*Bacidiacid, mosses\_Polytrichales, mosses\_Hypnales*(feather), Algae, mosses\_Bryales, lichens\_Stereocaulid, mites\_Mesostigmata, lichens\_Lecanorid, Rotifers, lichens\_Rhizocarpid, lichens\_Acarosporacid, lichens\_Teloschistid, mosses\_Pottiales, mosses\_Dicranales, mites\_Sarcoptiformes, Springtails\_slim, lichens\_Parmelid, Nematodes, mites\_Trombidiformes, lichens\_Physcid\_(shadow), lichens\_Candelarid and algae\_Green than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

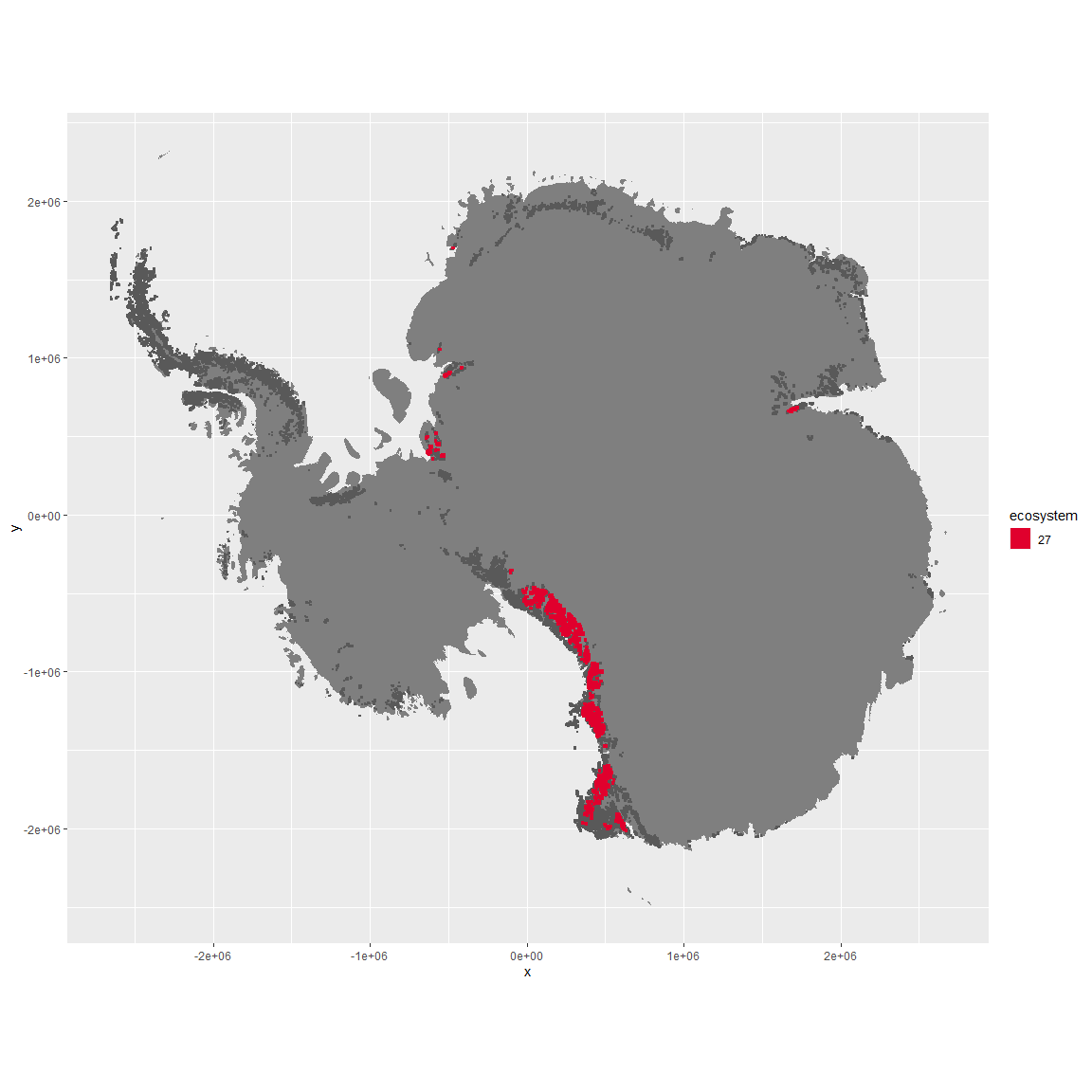
## Ecosystem Env5\_sdm4, Arid highland nunataks

Env5\_sdm4, Arid highland nunataks. Occurs throughout the Transantarctic mountains and Victoria land. The main environmental group in the lower outcrops separating the dry valleys near McMurdo, this unit is higher in elev and lower in temp than the rest of its group (though not as high as previous unit). It has especially low cloud cover. Main sampled fauna are Athropods, Nematodes, and Chlorophytes. Suitability terrible for most functional groups except Chlorophyta and Ochrophyta.

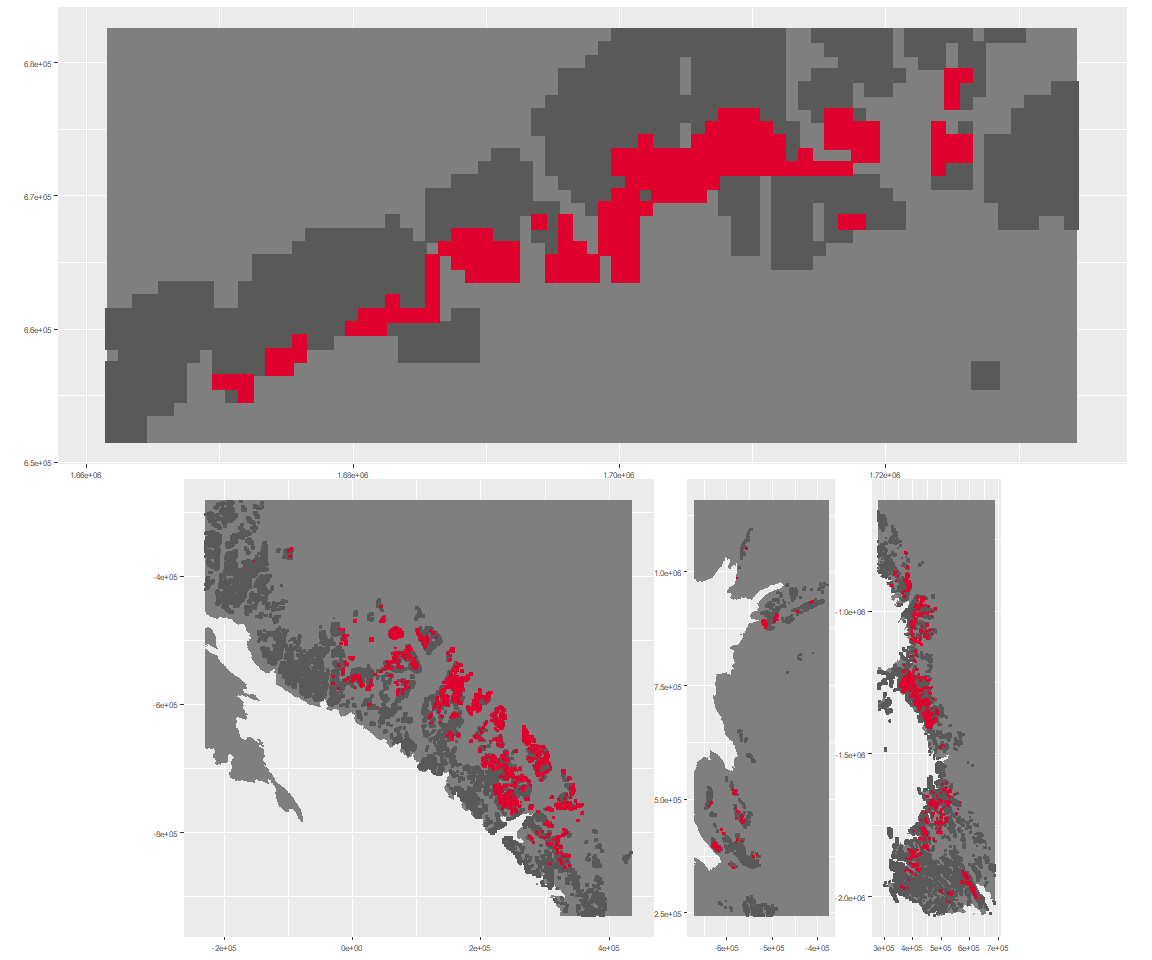
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

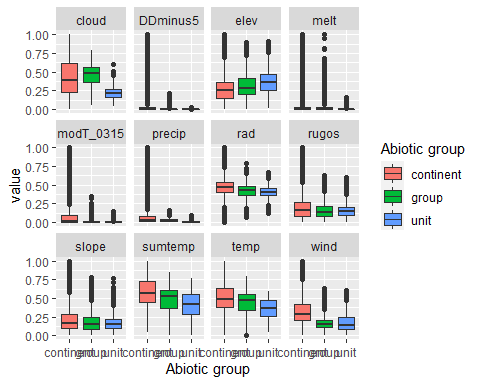
The unit env5\_sdm4 is part of the environmental supergroup env5.

This supergroup is, on average, substantially higher in elev than continental antarctica. It is substantially lower in modT\_0315, rad, precip, temp, sumtemp and wind than the rest of the continent.

The elevation of unit env5\_sdm4 ranges from 64 to 4329 metres above sea level, but 90% of its pixels fall above 819 and below 2943 metres. Its average elevation is 1809 metres.

The unit is higher in elev and lower in sumtemp, temp and cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

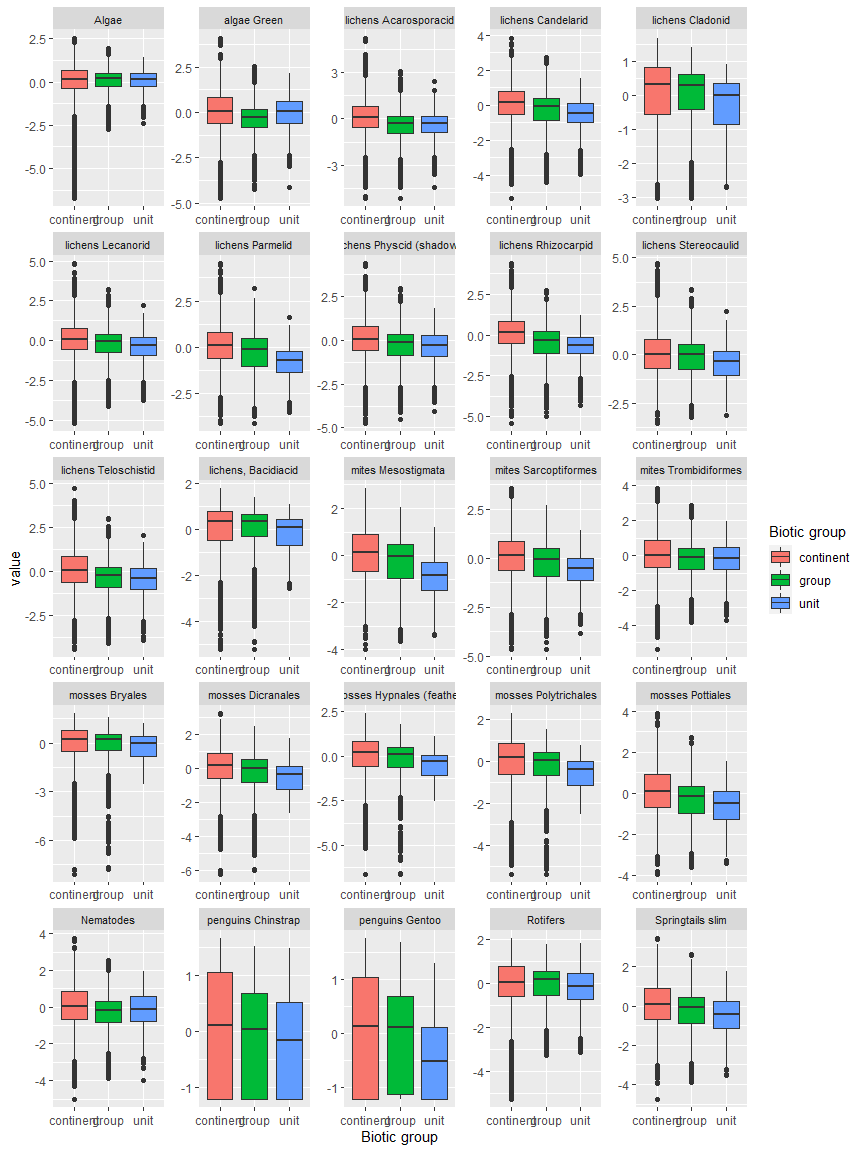
The top most widespread species in ecosystem env5\_sdm4

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 5 | 12.1951 |
| Eudorylaimus antarcticus | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 3 | 7.3171 |
| Prasiola calophylla | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 3 | 7.3171 |
| Stereotydeus mollis | Arthropoda\_Arachnida\_Trombidiformes\_\_\_ | Arthropoda | TRUE | 3 | 7.3171 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 4.8780 |
| Scottnema lindsayae | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 2 | 4.8780 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Adineta grandis | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.4390 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Buellia olivaceobrunnea | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Calothrix braunii | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.4390 |
| Collotheca ornata | Rotifera\_\_\_\_\_ | Rotifera | FALSE | 1 | 2.4390 |
| Cylindrocystis brebissonii | Charophyta\_\_\_\_\_ | Charophyta | FALSE | 1 | 2.4390 |
| Gloeocapsa kuetzingiana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 1 | 2.4390 |
| Habrotrocha constricta | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.4390 |
| Hymenelia glacialis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Hymeneliaceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Hypsibius arcticus | Tardigrada\_\_\_\_\_ | Tardigrada | TRUE | 1 | 2.4390 |
| Lecanora fuscobrunnea | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Macrotrachela habita | Rotifera\_\_\_\_\_ | Rotifera | FALSE | 1 | 2.4390 |
| Microcoleus paludosus | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.4390 |
| Nanorchestes antarcticus | Arthropoda\_Arachnida\_Sarcoptiformes\_\_\_ | Arthropoda | TRUE | 1 | 2.4390 |
| Philodina antarctica | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.4390 |
| Philodina gregaria | Rotifera\_\_\_\_\_ | Rotifera | TRUE | 1 | 2.4390 |
| Phormidium corium | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.4390 |
| Phormidium uncinatum | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 1 | 2.4390 |
| Plectus murrayi | Nematoda\_\_\_\_\_ | Nematoda | TRUE | 1 | 2.4390 |
| Rinodina sordida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 1 | 2.4390 |
| Sarconeurum glaciale | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | TRUE | 1 | 2.4390 |
| Tetracystis sp. | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 1 | 2.4390 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Acarosporacid, lichens\_Parmelid, mites\_Mesostigmata and lichens\_Rhizocarpid than the rest of the continent.

Unit env5\_sdm4 is higher in suitability for algae\_Green and lower in suitability for lichens\_Stereocaulid, mosses\_Hypnales\_(feather), mites\_Sarcoptiformes, mosses\_Polytrichales, penguins\_Gentoo, lichens\_Parmelid and mites\_Mesostigmata than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

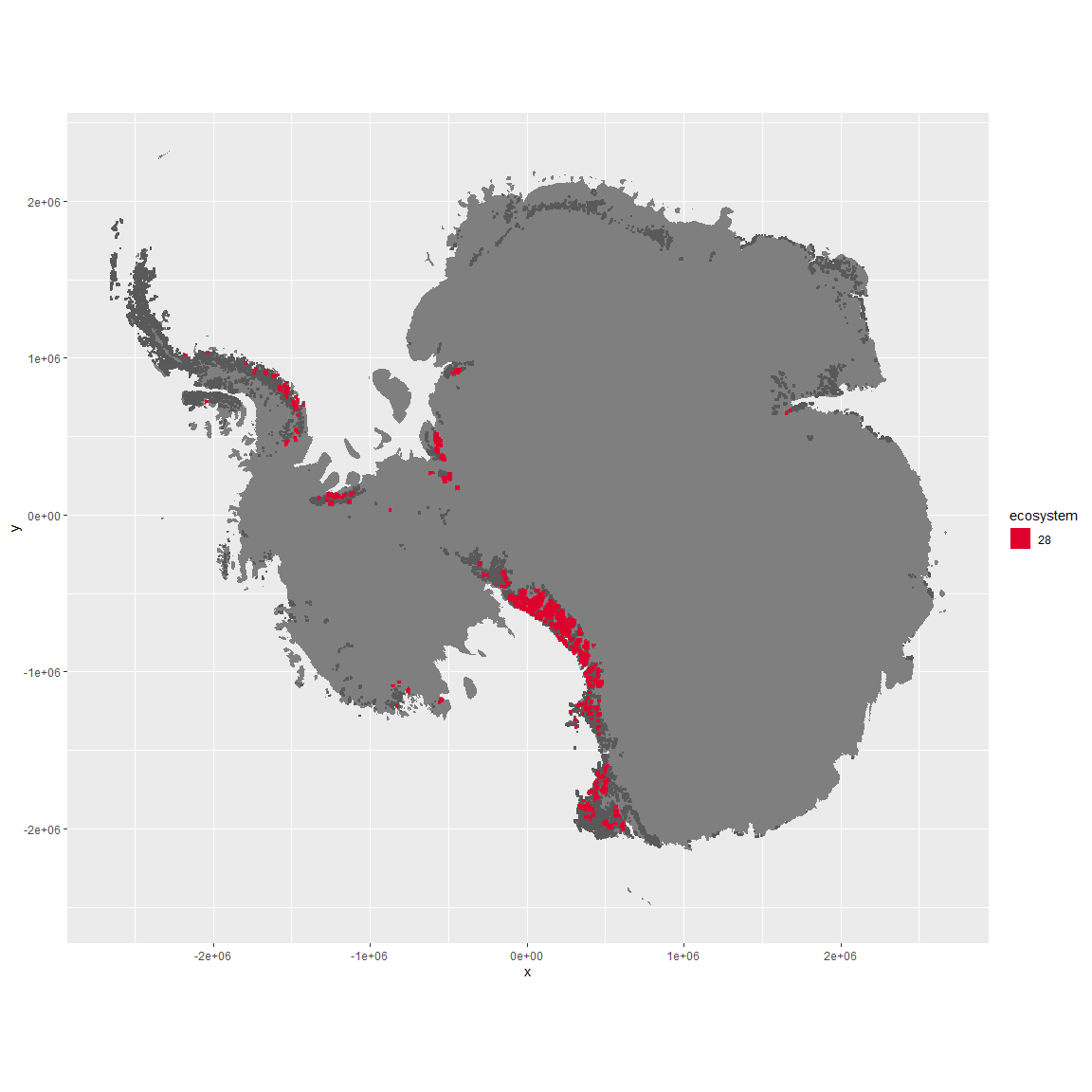
## Ecosystem Env5\_sdm5, High snowy mountain slopes

Env5\_sdm5, High snowy mountain slopes. Occurs mainly along the east coast of the southern peninsula, in the Ellsworth mountains, throughout the Transantarctic mountains, and throughout Victoria Land. This unit is clearer and colder than the rest of its group, but very similar to 5.3, difference is mainly higher cloud cover on average. Sampled biota mainly Chlorophytes, Cyanobacteria, and lichens. Suitability is low for every group and especially some lichen groups.

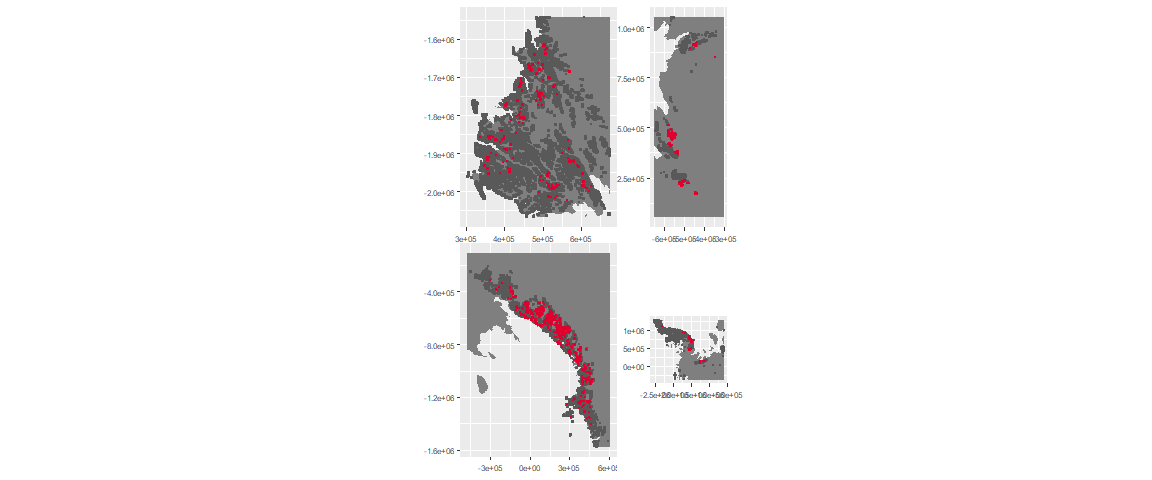
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

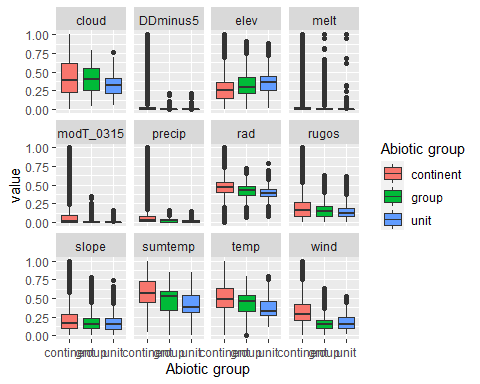
The unit env5\_sdm5 is part of the environmental supergroup env5.

This supergroup is, on average, substantially higher in elev than continental antarctica. It is substantially lower in modT\_0315, rad, precip, temp, sumtemp and wind than the rest of the continent.

The elevation of unit env5\_sdm5 ranges from 57 to 4260 metres above sea level, but 90% of its pixels fall above 711 and below 3010 metres. Its average elevation is 1754 metres.

The unit is higher in no variables and lower in sumtemp, temp and cloud than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

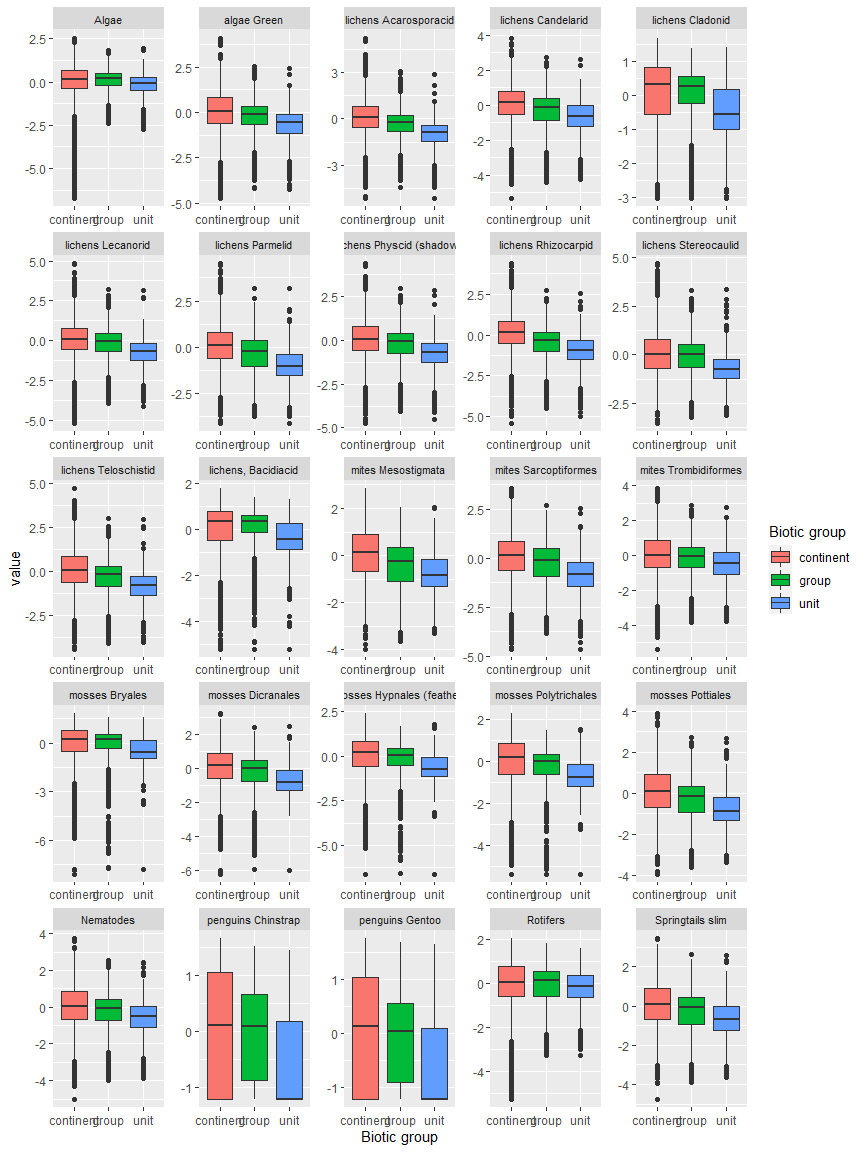
The top most widespread species in ecosystem env5\_sdm5

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Desmococcus olivaceus | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 4 | 4 |
| Pseudephebe minuscula | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 4 | 4 |
| Stichococcus bacillaris | Chlorophyta\_\_\_\_\_ | Chlorophyta | FALSE | 4 | 4 |
| Gloeocapsa punctata | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 3 | 3 |
| Gloeocapsa ralfsiana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 3 | 3 |
| Omphalodiscus bakeri | Ascomycota\_Unknown\_Unknown\_Unknown\_\_ | Ascomycota | TRUE | 3 | 3 |
| Physcia caesia | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 3 | 3 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 3 | 3 |
| Usnea sphacelata | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | TRUE | 3 | 3 |
| Acarospora gwynnii | Ascomycota\_Lecanoromycetes\_Acarosporales\_Acarosporaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Buellia pernigra | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Calothrix parietina | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 2 | 2 |
| Candelariella flava | Ascomycota\_Lecanoromycetes\_Candelariales\_Candelariaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Gloeocapsa alpina | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | FALSE | 2 | 2 |
| Gloeocapsa kuetzingiana | Cyanobacteria\_\_\_\_\_ | Cyanobacteria | TRUE | 2 | 2 |
| Gomphiocephalus hodgsoni | Arthropoda\_Entognatha\_Poduromorpha\_\_\_ | Arthropoda | TRUE | 2 | 2 |
| Huea smaragdula | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Lecidea cancriformis | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecideaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Pseudococcomyxa simplex | Chlorophyta\_\_\_\_\_ | Chlorophyta | TRUE | 2 | 2 |
| Rinodina olivaceobrunnea | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 2 | 2 |
| Schistidium antarctici | Bryophyta\_Bryopsida\_Grimmiales\_\_\_ | Bryophyta | TRUE | 2 | 2 |
| Umbilicaria cristata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | TRUE | 2 | 2 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 2 | 2 |

This supergroup is, on average, substantially higher in suitability for no variables functional groups than continental Antarctica. It is substantially lower in suitability for lichens\_Acarosporacid, lichens\_Parmelid, mites\_Mesostigmata and lichens\_Rhizocarpid than the rest of the continent.

Unit env5\_sdm5 is higher in suitability for no variables and lower in suitability for Algae, mites\_Mesostigmata, mites\_Trombidiformes, mosses\_Bryales, Nematodes, lichens,*Bacidiacid, mosses\_Polytrichales, lichens\_Cladonid, lichens\_Candelarid, mosses\_Hypnales*(feather), algae\_Green, Springtails\_slim, mosses\_Dicranales, mosses\_Pottiales, penguins\_Chinstrap, penguins\_Gentoo, lichens\_Rhizocarpid, lichens\_Teloschistid, lichens\_Physcid\_(shadow), mites\_Sarcoptiformes, lichens\_Lecanorid, lichens\_Stereocaulid, lichens\_Parmelid and lichens\_Acarosporacid than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

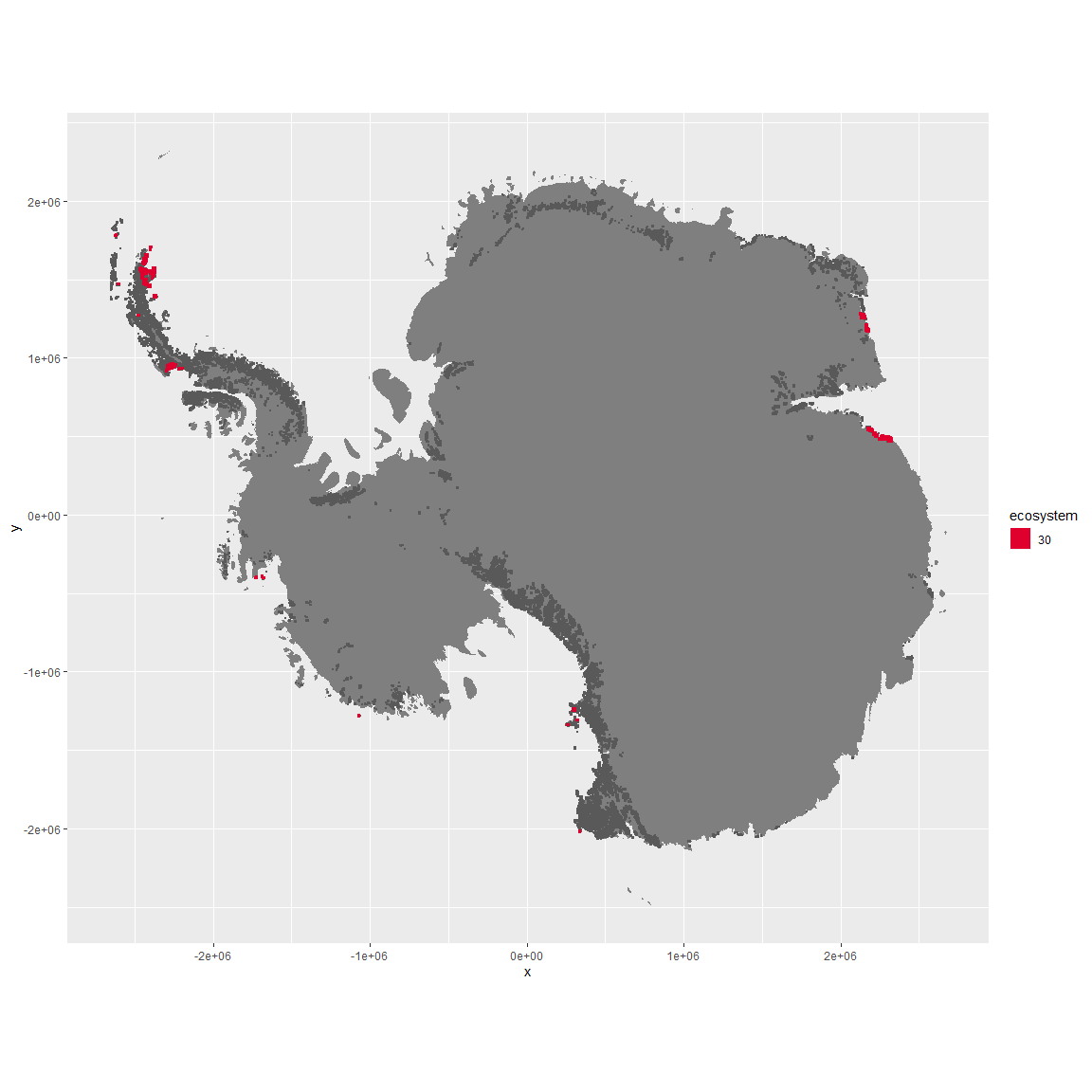
## Ecosystem Env6\_sdm1 Islands1

Env6\_sdm1 Islands1. Occurs mainly on James Ross island, with a scattering of occurrences in other ACBRs. This unit’s most sampled biota are adelie penguins and Bryum pseudotriquetum (moss). Ochrophytes are also well-represented. Several Ochrophyte and Athropod species seem to prefer this unit over all others. Suitability is high for all functional groups in this environmental group, but this unit is especially suitable for Rotifers, Ochrophytes, and several Lichen groups (Acarosporaceae and Physcidaceae most pronounced).

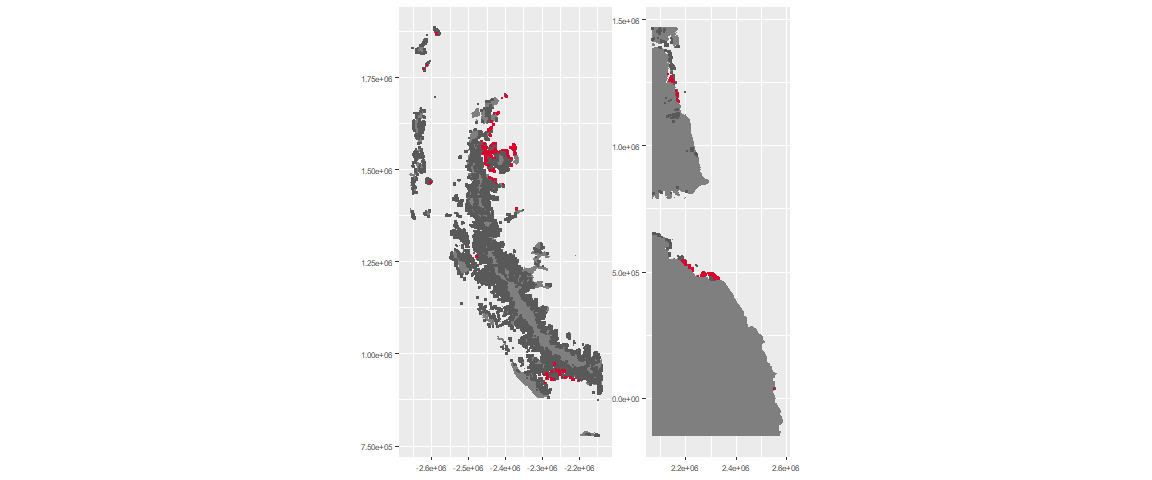
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

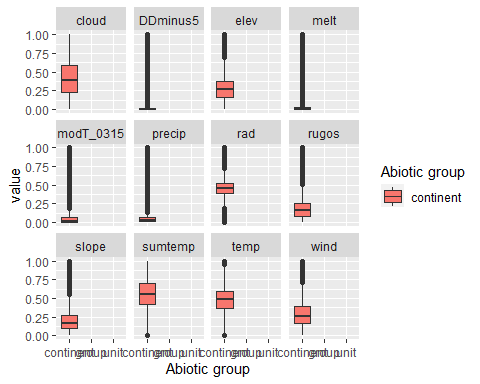
The unit env6\_sdm1 is part of the environmental supergroup env6.

This supergroup is, on average, substantially higher in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than continental antarctica. It is substantially lower in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than the rest of the continent.

The elevation of unit env6\_sdm1 ranges from 0 to 792 metres above sea level, but 90% of its pixels fall above 0 and below 302 metres. Its average elevation is 40 metres.

The unit is higher in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA and lower in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

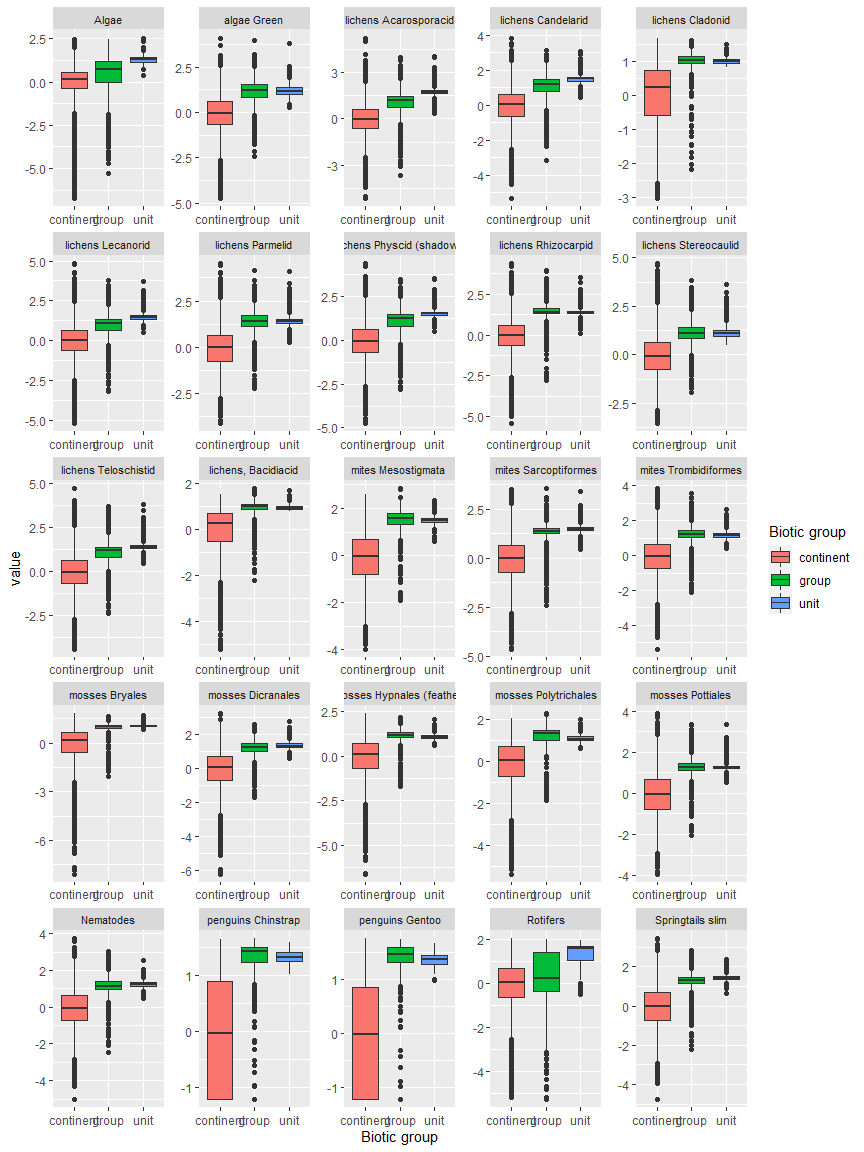
The top most widespread species in ecosystem env6\_sdm1

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pygoscelis adeliae | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_adeliae | Chordata | FALSE | 32 | 3.3438 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 19 | 1.9854 |
| Umbilicaria decussata | Ascomycota\_Lecanoromycetes\_Umbilicariales\_Umbilicariaceae\_\_ | Ascomycota | FALSE | 16 | 1.6719 |
| Buellia frigida | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | TRUE | 12 | 1.2539 |
| Caloplaca citrina | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | TRUE | 12 | 1.2539 |
| Fragilaria sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 12 | 1.2539 |
| Navicula salinarum | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 12 | 1.2539 |
| Pinnularia microstauron | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 12 | 1.2539 |
| Xanthoria elegans | Ascomycota\_Lecanoromycetes\_Teloschistales\_Teloschistaceae\_\_ | Ascomycota | FALSE | 12 | 1.2539 |
| Chaetoceros sp. | Ochrophyta\_\_\_\_\_ | Ochrophyta | TRUE | 11 | 1.1494 |
| Navicula directa | Ochrophyta\_\_\_\_\_ | Ochrophyta | FALSE | 11 | 1.1494 |
| Physcia caesia | Ascomycota\_Lecanoromycetes\_Teloschistales\_Physciaceae\_\_ | Ascomycota | FALSE | 11 | 1.1494 |
| Rhizoplaca melanophthalma | Ascomycota\_Lecanoromycetes\_Lecanorales\_Lecanoraceae\_\_ | Ascomycota | FALSE | 11 | 1.1494 |

This supergroup is, on average, substantially higher in suitability for mites\_Mesostigmata, lichens\_Rhizocarpid, penguins\_Gentoo, lichens\_Parmelid, mites\_Sarcoptiformes, penguins\_Chinstrap, Springtails\_slim, mosses\_Pottiales, mosses\_Polytrichales, mosses\_Dicranales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), algae\_Green, Nematodes, lichens\_Physcid\_(shadow), lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Stereocaulid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Cladonid, mosses\_Bryales, lichens,\_Bacidiacid, Algae and Rotifers functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env6\_sdm1 is higher in suitability for Rotifers, Algae, lichens\_Acarosporacid, lichens\_Lecanorid, lichens\_Physcid\_(shadow), lichens\_Candelarid and lichens\_Teloschistid and lower in suitability for no variables than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica



Ecosystem Description

Aniko B. Toth

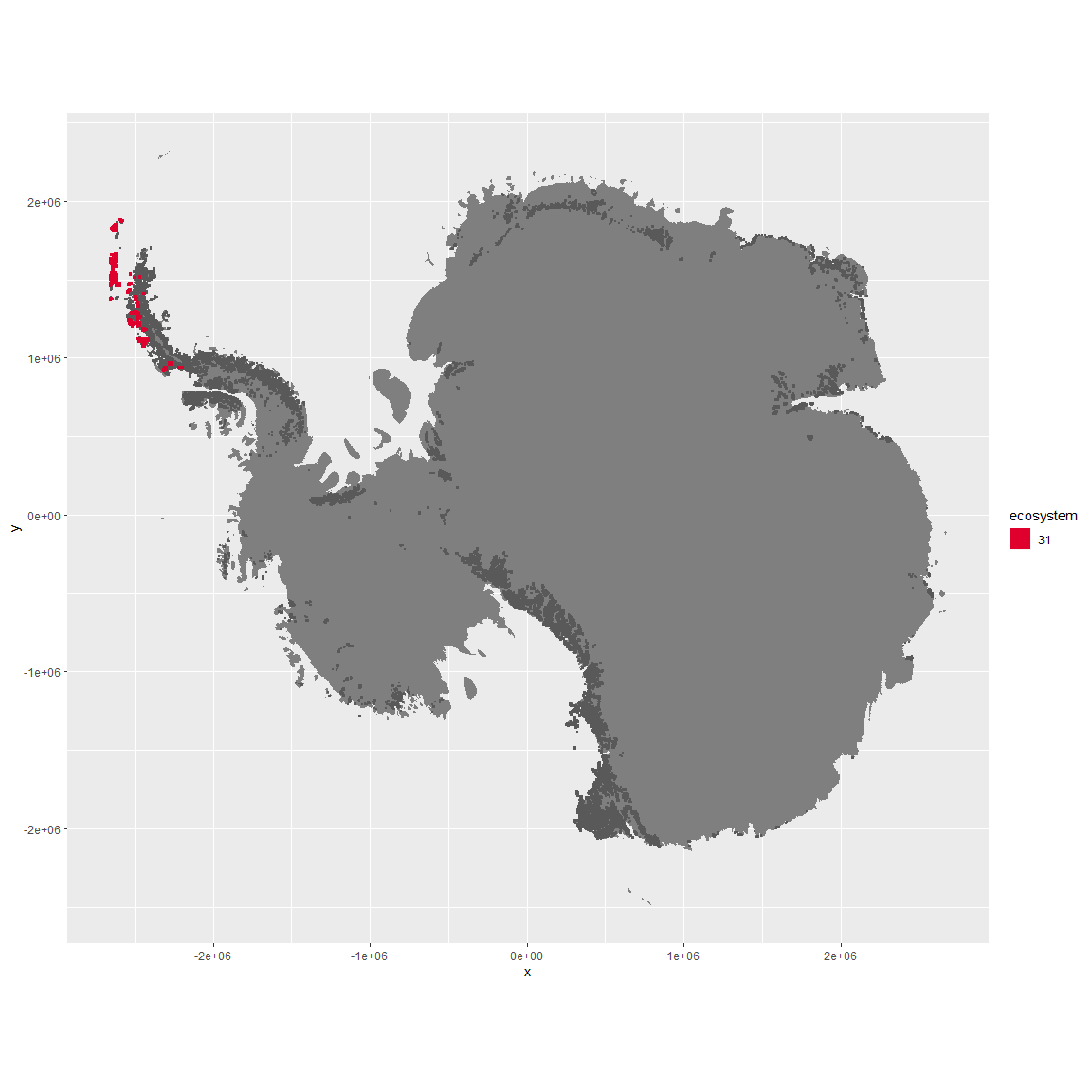
## Ecosystem Env6\_sdm2 Coastal/Island tundra

Env6\_sdm2 Coastal/Island tundra. This unit occurs exclusively on the outer tip of the Antarctic peninsula and surrounding islands. It is teeming with penguins, features antarctic hair grass, two moss species, followed by a variety of lichens and arthropods. Snowy Sheathbill is found primarily in this unit, as are gentoo penguins, both vascular plants, and several moss and lichen species. Suitability is high for pretty much everything except Rotifers, but especially high for Parmeliaceae, Cladoniaceae, and Bacidiaceae lichens as well as Mesostigmatid mites, chinstrap penguins, and Hypnales/Polytrichiales mosses. This is probably the most habitable unit on the continent.

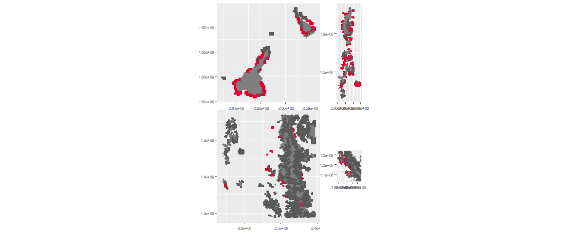
### Photos (if available)

### Distribution

Maps - Full map



Regional maps



### Environment

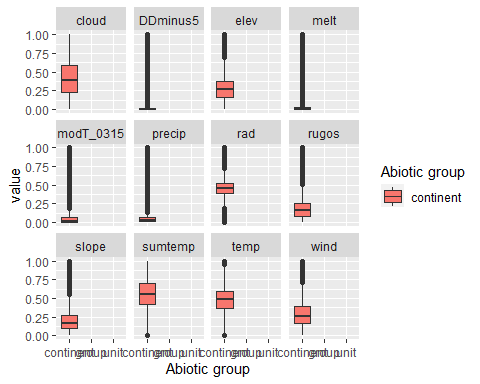
The unit env6\_sdm2 is part of the environmental supergroup env6.

This supergroup is, on average, substantially higher in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than continental antarctica. It is substantially lower in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than the rest of the continent.

The elevation of unit env6\_sdm2 ranges from 0 to 1778 metres above sea level, but 90% of its pixels fall above 0 and below 407 metres. Its average elevation is 72 metres.

The unit is higher in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA and lower in NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA and NA than the rest of its environmental supergroup.

#### Distinctiveness of the unit from its group and the rest of Antarctica



### Biota

Most widespread species in the unit (found in most pixels)

The top most widespread species in ecosystem env6\_sdm2

| scientific | Functional\_group | phylum | restricted | count | relative\_pct |
| --- | --- | --- | --- | --- | --- |
| Pygoscelis antarctica | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_antarctica | Chordata | TRUE | 90 | 4.2135 |
| Polytrichastrum alpinum | Bryophyta\_Bryopsida\_Polytrichales\_\_\_ | Bryophyta | FALSE | 42 | 1.9663 |
| Syntrichia princeps | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | FALSE | 32 | 1.4981 |
| Usnea antarctica | Ascomycota\_Lecanoromycetes\_Lecanorales\_Parmeliaceae\_\_ | Ascomycota | FALSE | 32 | 1.4981 |
| Pygoscelis papua | Chordata\_Aves\_Sphenisciformes\_Spheniscidae\_Pygoscelis\_papua | Chordata | FALSE | 30 | 1.4045 |
| Sanionia uncinata | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | FALSE | 30 | 1.4045 |
| Bryum pseudotriquetrum | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 29 | 1.3577 |
| Ceratodon purpureus | Bryophyta\_Bryopsida\_Dicranales\_\_\_ | Bryophyta | FALSE | 29 | 1.3577 |
| Bartramia patens | Bryophyta\_Bryopsida\_Bryales\_\_\_ | Bryophyta | FALSE | 25 | 1.1704 |
| Brachythecium austro-salebrosum | Bryophyta\_Bryopsida\_Hypnales\_\_\_ | Bryophyta | TRUE | 25 | 1.1704 |
| Cryptopygus antarcticus | Arthropoda\_Entognatha\_Entomobryomorpha\_\_\_ | Arthropoda | TRUE | 25 | 1.1704 |
| Syntrichia filaris | Bryophyta\_Bryopsida\_Pottiales\_\_\_ | Bryophyta | TRUE | 25 | 1.1704 |

This supergroup is, on average, substantially higher in suitability for mites\_Mesostigmata, lichens\_Rhizocarpid, penguins\_Gentoo, lichens\_Parmelid, mites\_Sarcoptiformes, penguins\_Chinstrap, Springtails\_slim, mosses\_Pottiales, mosses\_Polytrichales, mosses\_Dicranales, mites\_Trombidiformes, mosses\_Hypnales\_(feather), algae\_Green, Nematodes, lichens\_Physcid\_(shadow), lichens\_Acarosporacid, lichens\_Teloschistid, lichens\_Stereocaulid, lichens\_Candelarid, lichens\_Lecanorid, lichens\_Cladonid, mosses\_Bryales, lichens,\_Bacidiacid, Algae and Rotifers functional groups than continental Antarctica. It is substantially lower in suitability for no variables than the rest of the continent.

Unit env6\_sdm2 is higher in suitability for mosses\_Polytrichales, lichens\_Parmelid, lichens\_Stereocaulid and mosses\_Hypnales\_(feather) and lower in suitability for Rotifers than the rest of its environmental supergroup.

Distinctiveness of the unit from the environmental group and the rest of Antarctica

