Raw data: pf = dependent variable; reg_quarter = categorical variable with two categories; other variables = continuous explanatory variables.

| pf | EVI_Jul_recode_100_10km | dist_coast_update | reg_quarter | tmin_6to8_C_5km | precip_6to8_cm_5km | altitude_surv_100m |
|----|-------------------------|-------------------|-------------|-----------------|---------------------|--------------------|
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |
| 0 | 42.69334 | 0.2600656 | 1 | 22.2 | 5.6 | 0.2 |

Showing 1 to 15 of 9,687 entries

Data file discretised: continuous variables discretised using quantile method with two breaks.

bnlearn_util.R ×    bn_learn_model_3.R ×    bnlearn_enviro_spatial_jul_2018.R ×    data1 ×

| | EVI_Jul_recode_100_10km | dist_coast_update | tmin_6to8_C_5km | precip_6to8_cm_5km | altitude_surv_100m | pf | reg_quarter |
|------|--------------------------|----------------------|------------------|---------------------|---------------------|----|-------------|
| 5643 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5644 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5645 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5646 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5647 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5648 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5649 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5650 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5651 | [9.25,48] | (0.0334,1.89] | [6.9,21.5] | [3.2,14.3] | (0.4,26] | 0 | 1 |
| 5652 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5653 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5654 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5655 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5656 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5657 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5658 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5659 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5660 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |
| 5661 | (48,63] | [3.98e-05,0.0334] | (21.5,23.6] | (14.3,96.2] | [0,0.4] | 0 | 2 |

Showing 5,643 to 5,661 of 9,687 entries

Data file with discretised states named

| | EVI_Jul_recode_100_10km | dist_coast_update | tmin_6to8_C_5km | precip_6to8_cm_5km | altitude_surv_100m | pf | reg_quarter |
|---|---|---|---|---|---|---|---|
| 5644 | low | hi | low | low | hi | 0 | southern |
| 5645 | low | hi | low | low | hi | 0 | southern |
| 5646 | low | hi | low | low | hi | 0 | southern |
| 5647 | low | hi | low | low | hi | 0 | southern |
| 5648 | low | hi | low | low | hi | 0 | southern |
| 5649 | low | hi | low | low | hi | 0 | southern |
| 5650 | low | hi | low | low | hi | 0 | southern |
| 5651 | low | hi | low | low | hi | 0 | southern |
| 5652 | hi | low | hi | hi | low | 0 | northern |
| 5653 | hi | low | hi | hi | low | 0 | northern |
| 5654 | hi | low | hi | hi | low | 0 | northern |
| 5655 | hi | low | hi | hi | low | 0 | northern |
| 5656 | hi | low | hi | hi | low | 0 | northern |
| 5657 | hi | low | hi | hi | low | 0 | northern |
| 5658 | hi | low | hi | hi | low | 0 | northern |

Showing 5,644 to 5,659 of 9,687 entries

Conditional probability table for bn

```
   Parameters of node pf (multinomial distribution)

Conditional probability table:

, , EVI_Jul_recode_100_10km = low, reg_quarter = southern

   dist_coast_update
pf        low          hi
  0 0.981973435 0.995176849
  1 0.018026565 0.004823151

, , EVI_Jul_recode_100_10km = hi, reg_quarter = southern

   dist_coast_update
pf        low          hi
  0 0.979052823 0.984174085
  1 0.020947177 0.015825915

, , EVI_Jul_recode_100_10km = low, reg_quarter = northern

   dist_coast_update
pf        low          hi
  0 0.964241677 0.984509466
  1 0.035758323 0.015490534

, , EVI_Jul_recode_100_10km = hi, reg_quarter = northern

   dist_coast_update
pf        low          hi
  0 0.939544103 0.929712460
  1 0.060455897 0.070287540
```

Lookup text file



bn_pf <- bnspatial(network, 'pf', spatialData, lookup)

Error message