Model\_selection\_factor\_binary

Significant

1. Domestication

Step 6

Current model: x ~ 1 + PETWettestQuarter + OrganicCarbon + bio2 + bio14 + bio19

AIC(k=2): 75.6963910456006

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

75.70 -30.85 -28.14

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.01262904

Coefficients:

Estimate StdErr z.value p.value

(Intercept) -2.55760 1.22272 -2.0917 0.03646 \*

PETWettestQuarter -0.85334 0.45674 -1.8683 0.06172 .

OrganicCarbon -2.95273 1.82073 -1.6217 0.10486

bio2 -1.40627 0.74155 -1.8964 0.05791 .

bio14 -1.21107 0.84978 -1.4252 0.15411

bio19 -1.07450 0.74168 -1.4487 0.14741

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.01262904

1. X12.1\_HabitatBreadth

Step 2

Current model: x ~ 1 + bio19

AIC(k=2): 58.8336709497215

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

58.83 -26.42 -24.66

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.006157195

Coefficients:

Estimate StdErr z.value p.value

(Intercept) 0.84122 1.17866 0.7137 0.4754

bio19 0.22075 0.14655 1.5063 0.1320

Note: Wald-type p-values for coefficients, conditional on alpha=0.006157195

1. X6.2\_TrophicLevel

Step 2

Current model: x ~ 1 + OrganicCarbon

AIC(k=2): 82.0784536658816

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

82.08 -38.04 -37.65

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.01436876

Coefficients:

Estimate StdErr z.value p.value

(Intercept) 1.31574 0.92232 1.4265 0.1537

OrganicCarbon 0.84238 0.75545 1.1151 0.2648

Note: Wald-type p-values for coefficients, conditional on alpha=0.01436876

1. Sociality

Step 5

Current model: x ~ 1 + Aspect + bio14 + bio15 + bio19

AIC(k=2): 134.376549065067

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

134.38 -61.19 -55.97

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.1095054

Coefficients:

Estimate StdErr z.value p.value

(Intercept) -1.25739 0.29717 -4.2312 2.325e-05 \*\*\*

Aspect 1.01095 0.65364 1.5466 0.121949

bio14 1.40107 0.53159 2.6356 0.008399 \*\*

bio15 0.90962 0.39728 2.2896 0.022045 \*

bio19 0.30048 0.30419 0.9878 0.323237

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.1095054

1. SocialHierarchy

Step 3

Current model: x ~ 1 + bio18 + bio19

AIC(k=2): 160.833993249862

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

160.83 -76.42 -72.14

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.06979109

Coefficients:

Estimate StdErr z.value p.value

(Intercept) 0.048174 0.277845 0.1734 0.86235

bio18 -0.554051 0.232810 -2.3798 0.01732 \*

bio19 -0.483253 0.223945 -2.1579 0.03094 \*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.06979109

1. YearRoundBreeding

Step 7

Current model: x ~ 1 + BulkDensity + PETseasonality + OrganicCarbon + Slope + bio14 + bio15

AIC(k=2): 94.3386296181526

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

94.34 -39.17 -35.25

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.1508846

Coefficients:

Estimate StdErr z.value p.value

(Intercept) -0.80191 0.47630 -1.6836 0.092254 .

BulkDensity -3.44175 1.51005 -2.2792 0.022654 \*

PETseasonality -0.92009 0.42966 -2.1414 0.032241 \*

OrganicCarbon -5.19657 1.94136 -2.6768 0.007434 \*\*

Slope -1.84271 0.57600 -3.1991 0.001378 \*\*

bio14 -0.61401 0.56187 -1.0928 0.274484

bio15 -1.05034 0.58075 -1.8086 0.070514 .

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.1508846

1. DevelopmentStrategy

Step 4

Current model: x ~ 1 + PETWettestQuarter + Slope + bio19

AIC(k=2): 108.316582087631

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

108.32 -49.16 -45.04

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.02443731

Coefficients:

Estimate StdErr z.value p.value

(Intercept) 1.80868 0.72541 2.4933 0.012656 \*

PETWettestQuarter -1.33264 0.50441 -2.6420 0.008242 \*\*

Slope -1.44435 0.47538 -3.0383 0.002379 \*\*

bio19 -0.40840 0.24384 -1.6749 0.093953 .

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.02443731

1. HeadOrnaments

Step 2

Current model: x ~ 1 + bio14

AIC(k=2): 108.143240758578

---END

Call:

phyloglm(formula = create.formula(plm), data = data, phy = phy,

method = method, btol = btol, log.alpha.bound = log.alpha.bound,

start.beta = start.beta, start.alpha = start.alpha, boot = boot,

full.matrix = full.matrix)

AIC logLik Pen.logLik

108.14 -51.07 -49.28

Method: logistic\_IG10

Mean tip height: 87.3

Parameter estimate(s):

alpha: 0.01939815

Coefficients:

Estimate StdErr z.value p.value

(Intercept) -1.38854 0.74897 -1.8539 0.06375 .

bio14 -0.33815 0.22511 -1.5022 0.13305

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: Wald-type p-values for coefficients, conditional on alpha=0.01939815