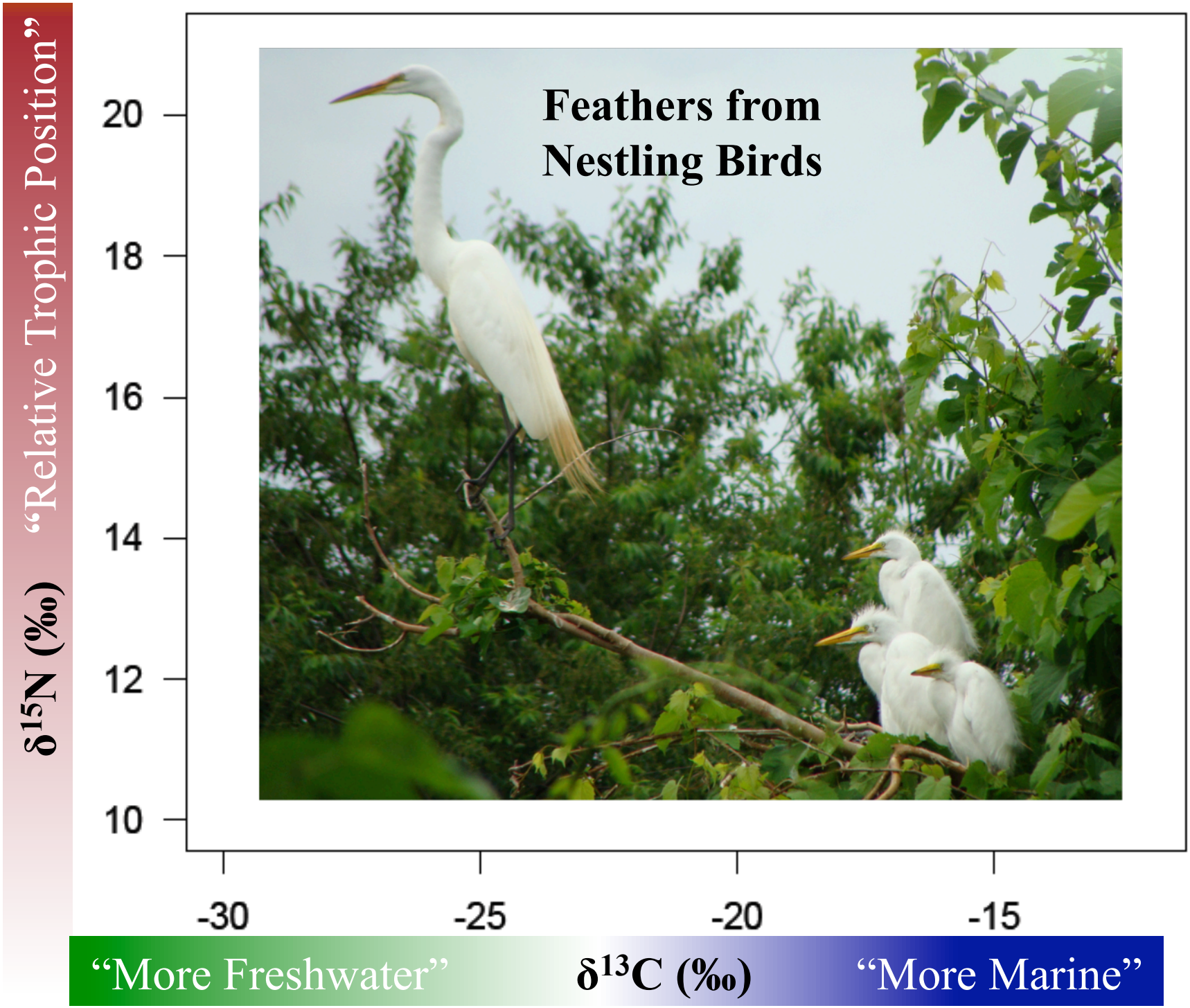
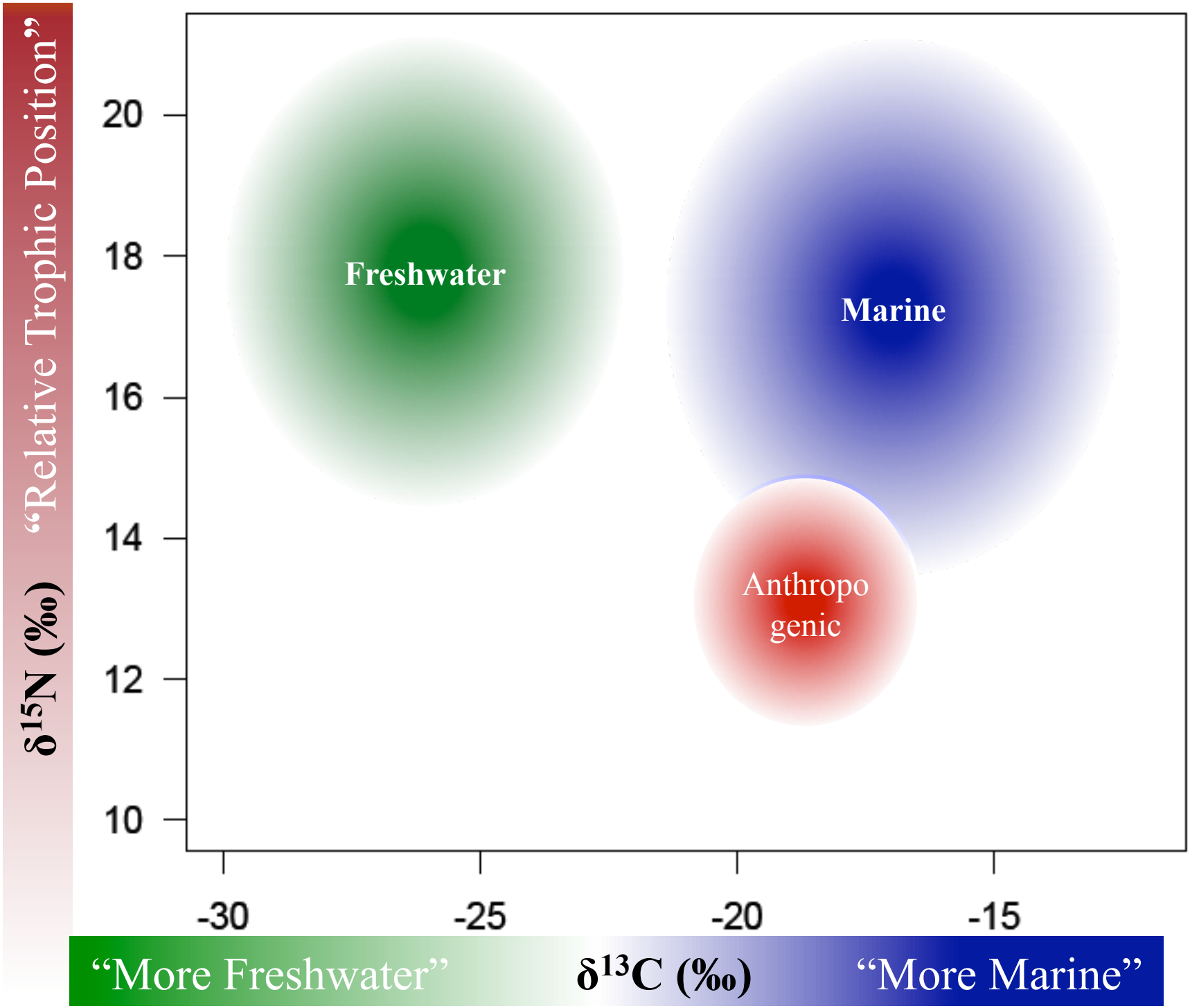
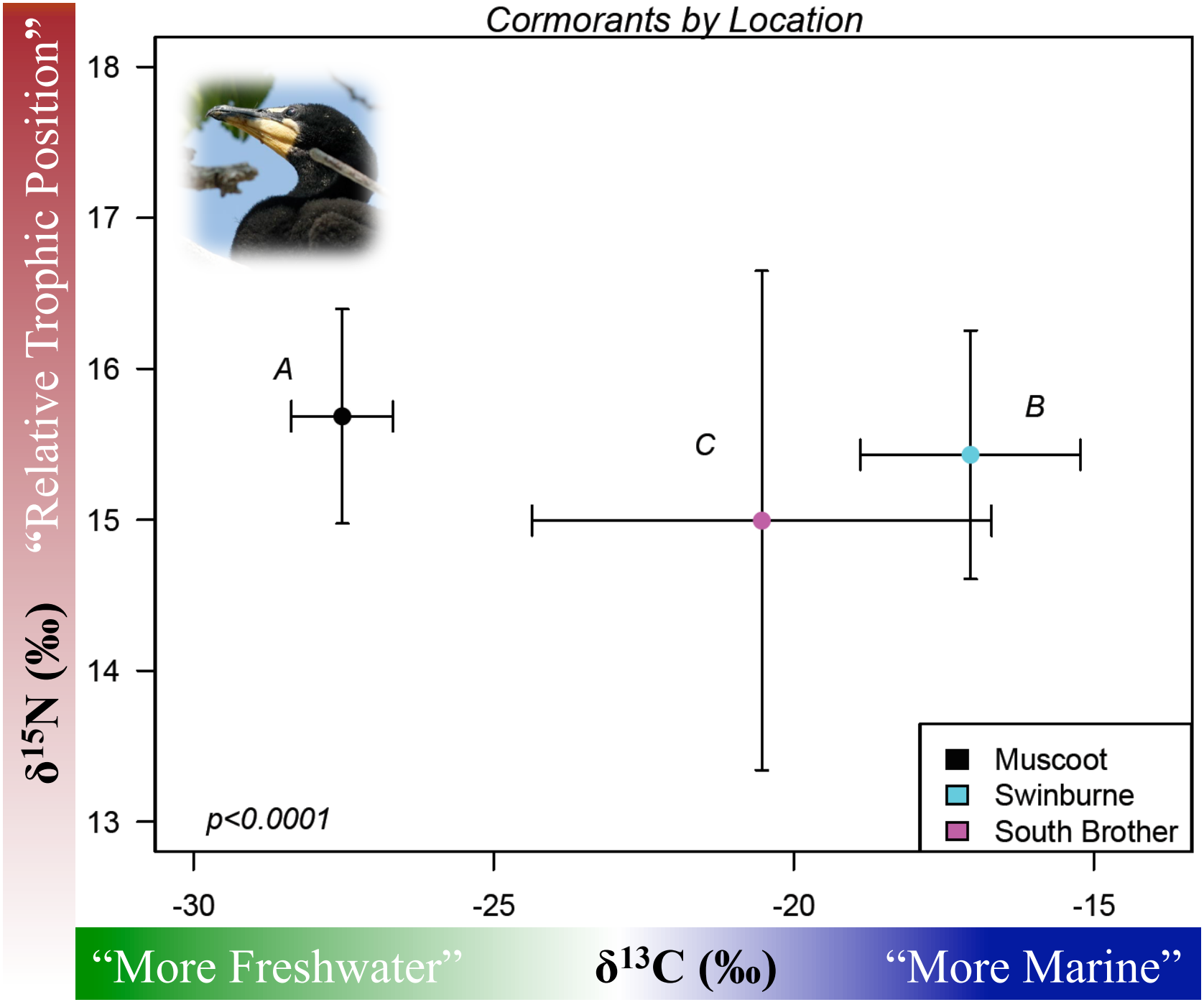
Stable Isotopes and Colonial Waterbird Foraging Ecology

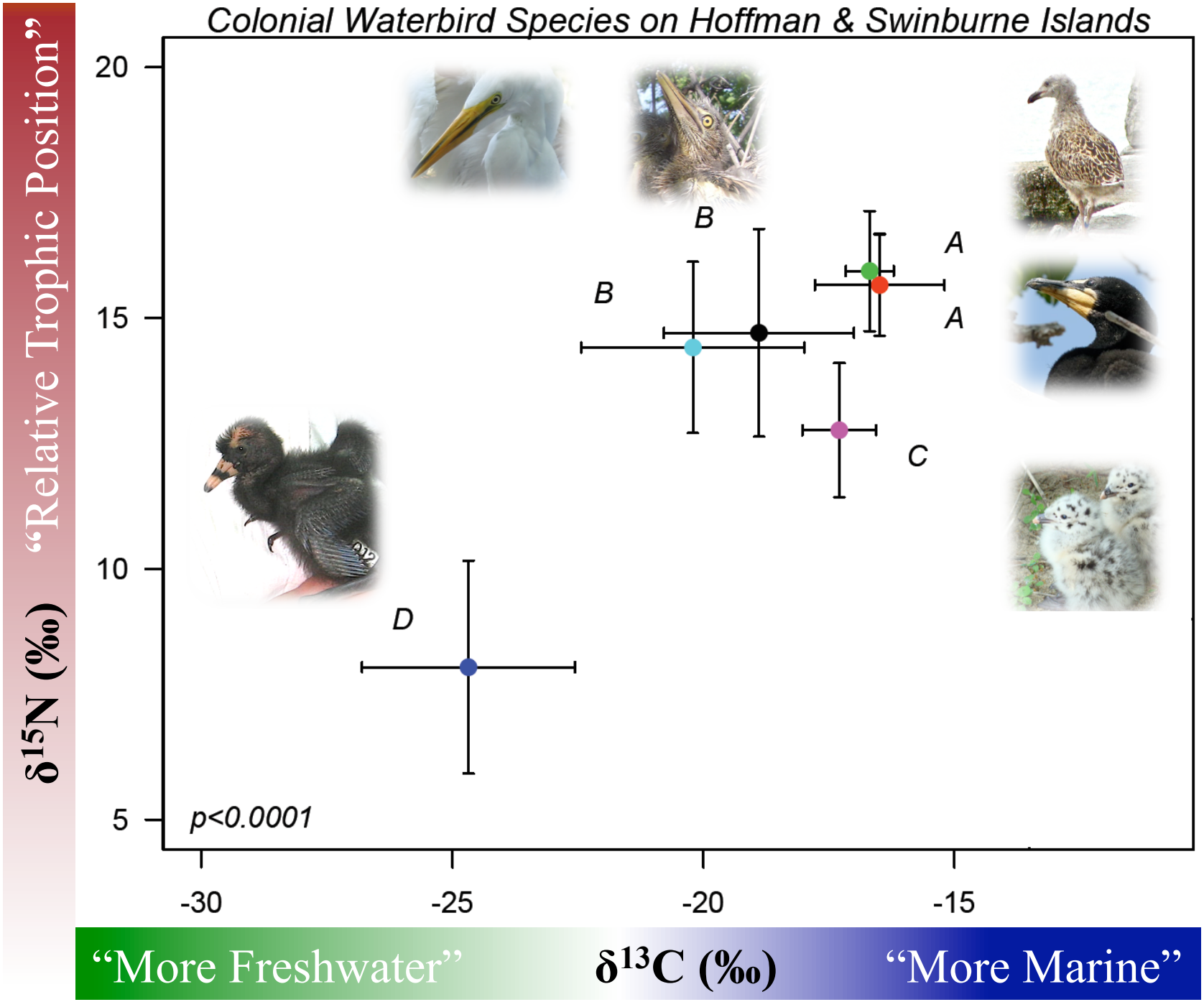
Elizabeth Craig[1,2], Susan Elbin[1], Jed Sparks[2], and Paul Curtis[2]

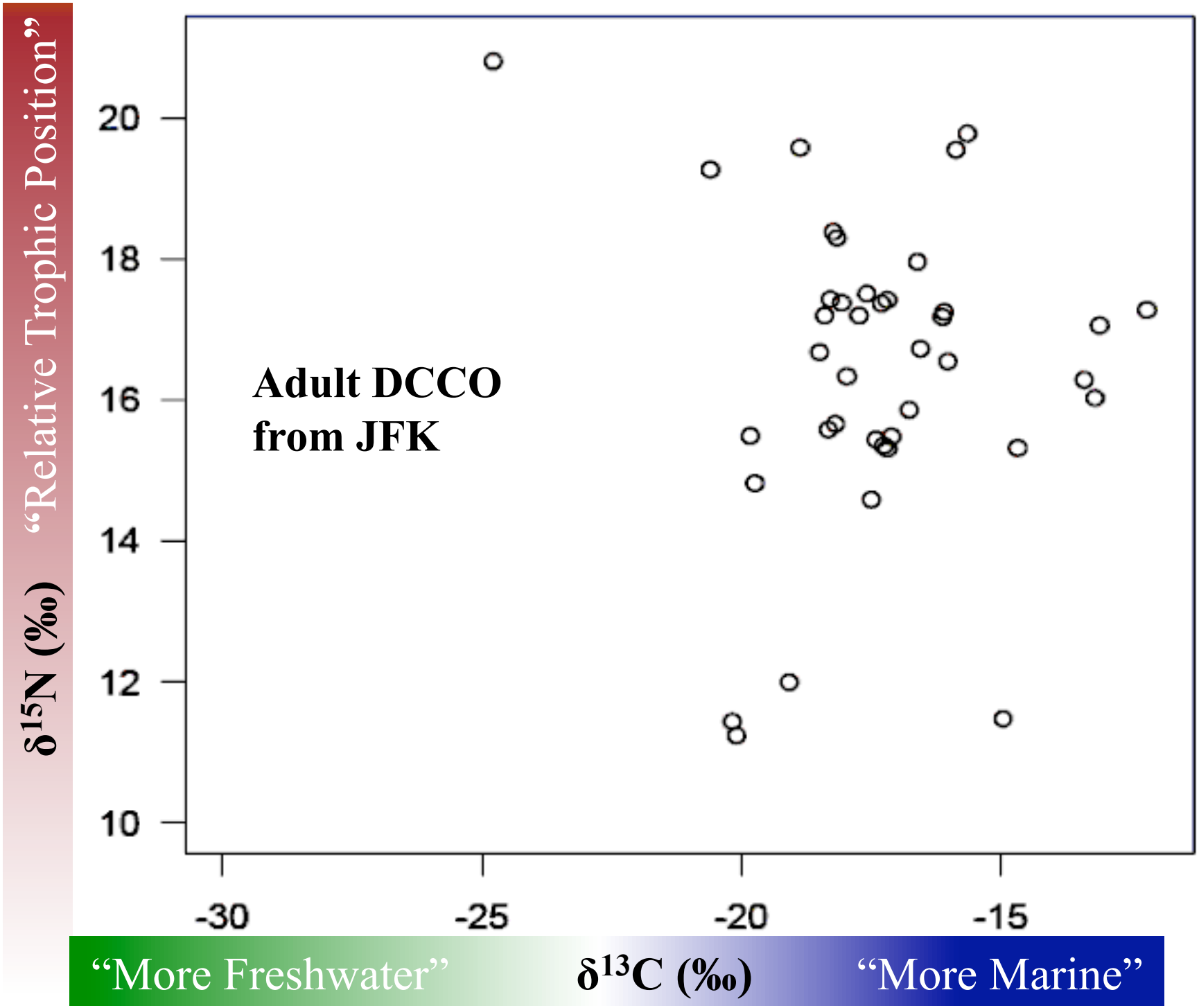
1) New York City Audubon 2) Cornell University

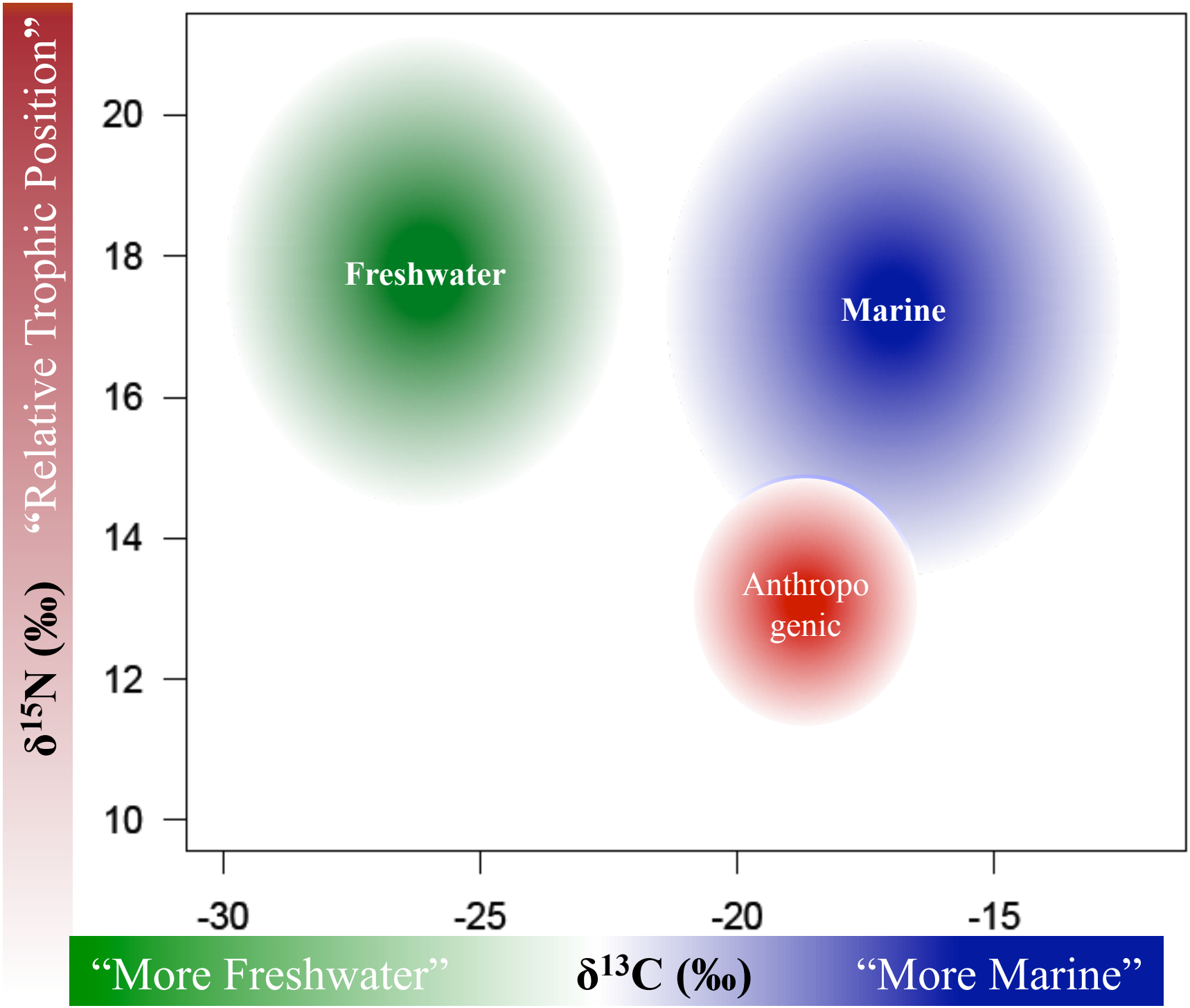

Feathers from
Nestling Birds
δ15N (‰)
"Relative Trophic Position"
20
18
16
14
12
10
-30
-25
-20
-15
"More Freshwater"
δ13C (‰)
"More Marine"


“Relative Trophic Position”
δ15N (‰)
20
18
16
14
12
10
Freshwater
Marine
Anthropo
genic
-30
-25
-20
-15
“More Freshwater”
δ13C (‰)
“More Marine”


Cormorants by Location
18
17
16
15
14
13
A
B
C
p<0.0001
Muscoot
Swinburne
South Brother
-30
-25
-20
-15
"Relative Trophic Position"
δ15N (‰)
"More Freshwater"
δ13C (‰)
"More Marine"


Colonial Waterbird Species on Hoffman & Swinburne Islands
20
15
10
5
B
B
A
A
C
D
p<0.0001
-30
-25
-20
-15
δ15N (‰) "Relative Trophic Position"
"More Freshwater"
δ13C (‰)
"More Marine"


"Relative Trophic Position"
δ15N (‰)
Adult DCCO
from JFK
20
18
16
14
12
10
-30
-25
-20
-15
"More Freshwater"
δ13C (‰)
"More Marine"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Freshwater
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Anthropo
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-30
-25
-20
-15
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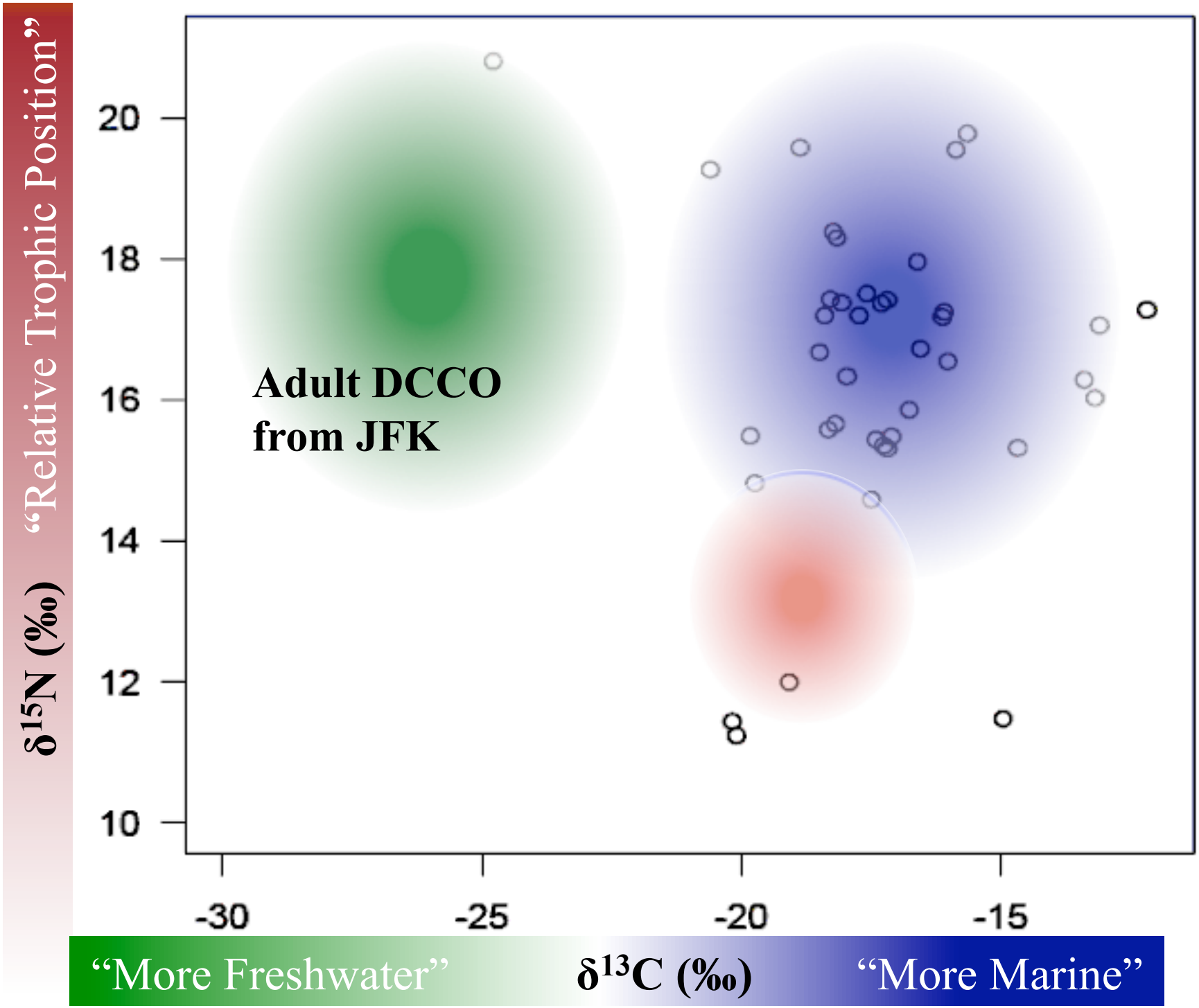
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20
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Adult DCCO
from JFK
-30
-25
-20
-15
“More Freshwater”
δ13C (‰)
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