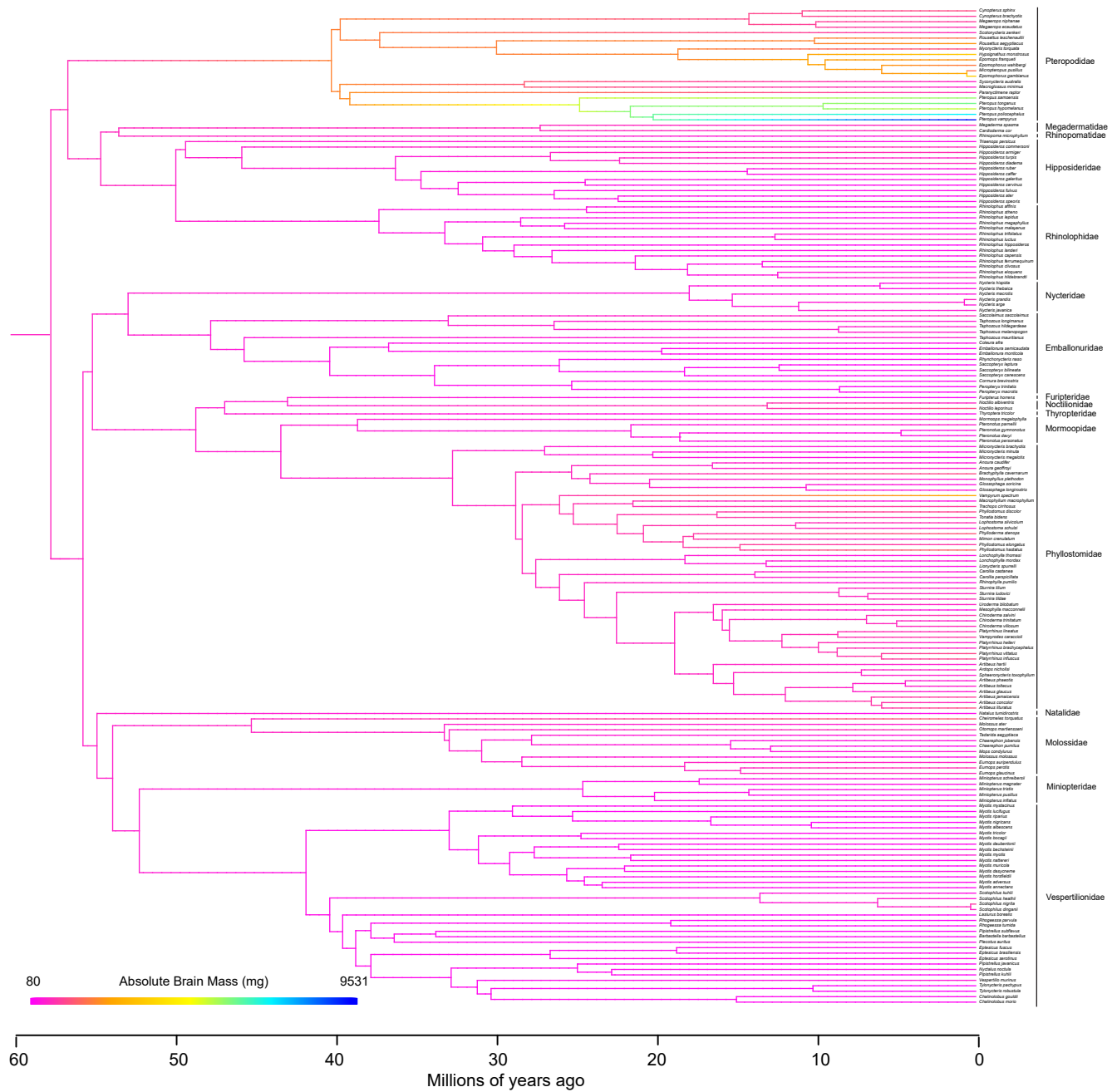


Estimates of the maximum likelihood (ML) ancestral states for absolute (a) body, (b) eye, (c) brain, and (d-i) brain regions. Masses were generated and mapped onto the tree by estimating states at internal nodes using ML and interpolating the states along each edge. The phylogeny and variation in the absolute trait values were combined to visualize the increase and decrease of these traits in different lineages over evolutionary time. The color gradient indicates trait size, as mapped onto the phylogeny (families indicated along right side).



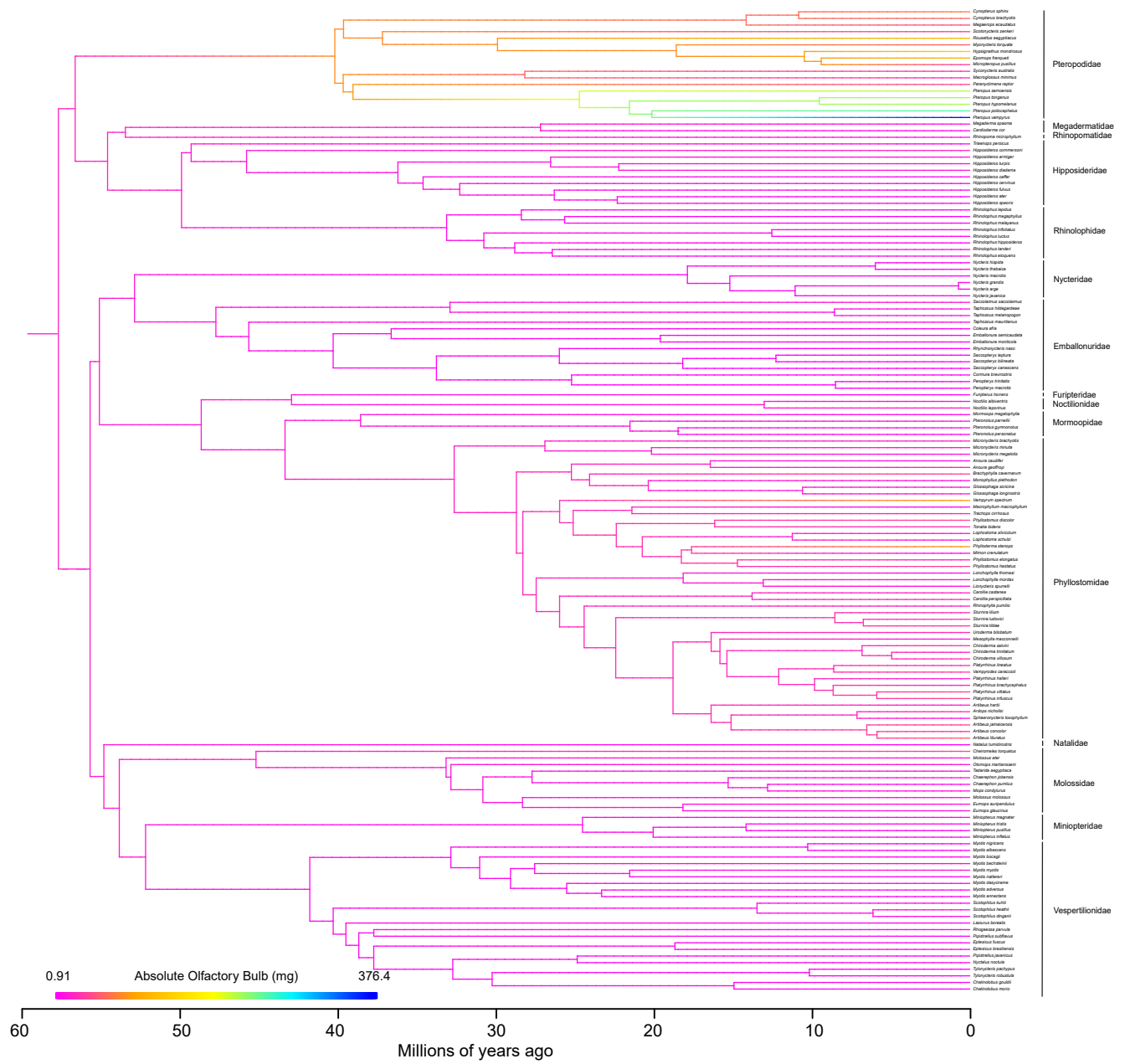




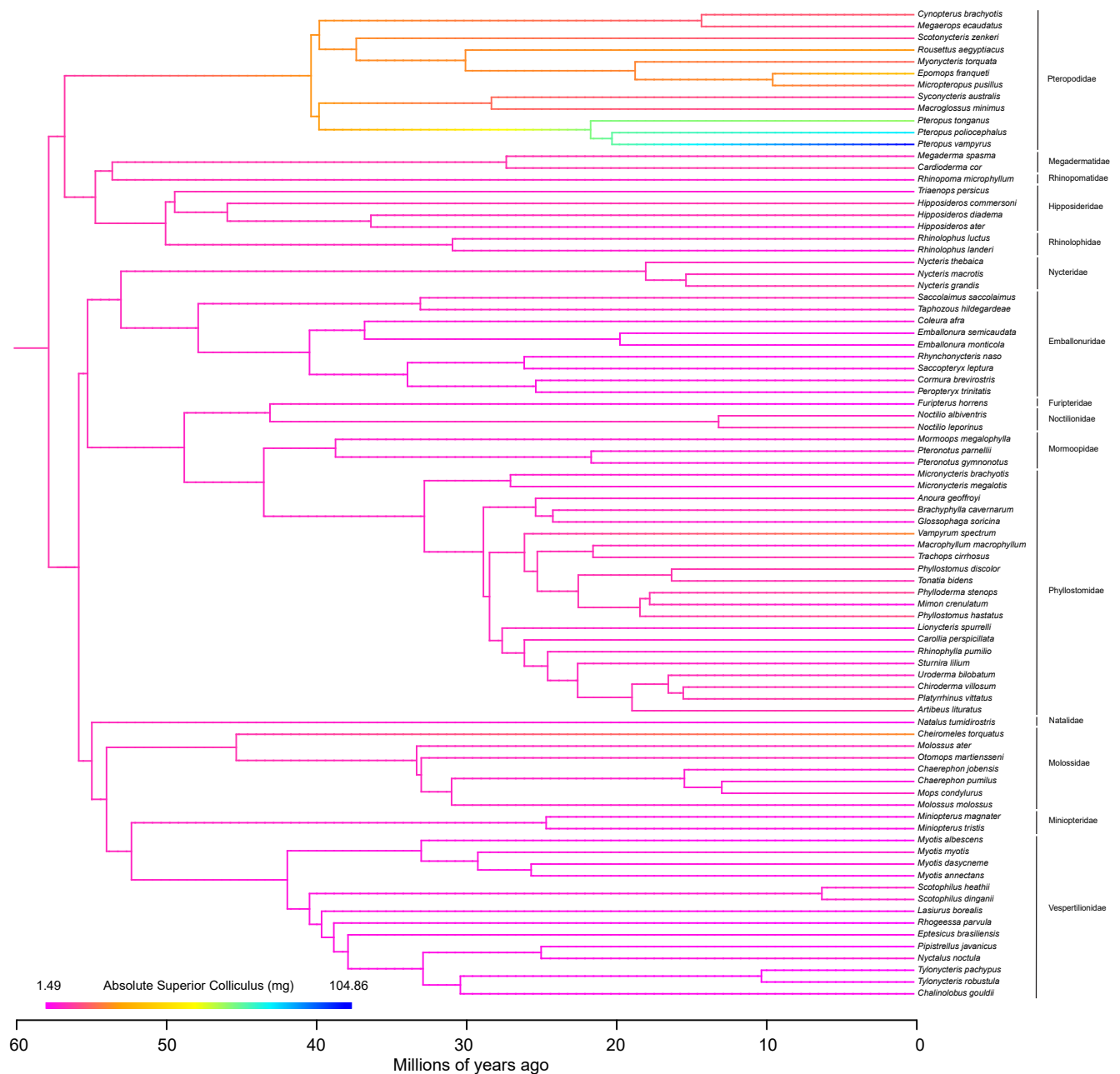
Supplementary Figure 1c.



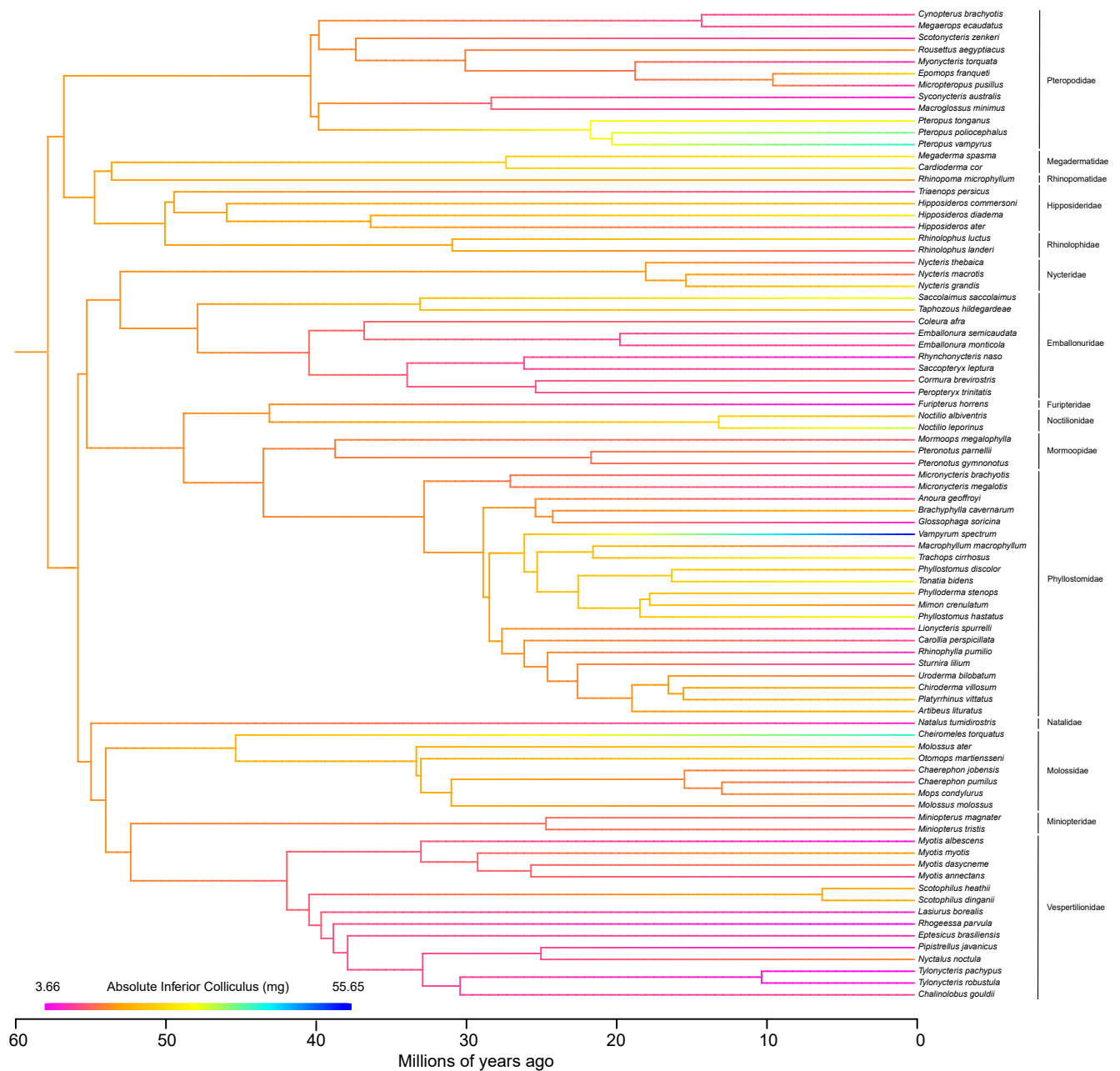




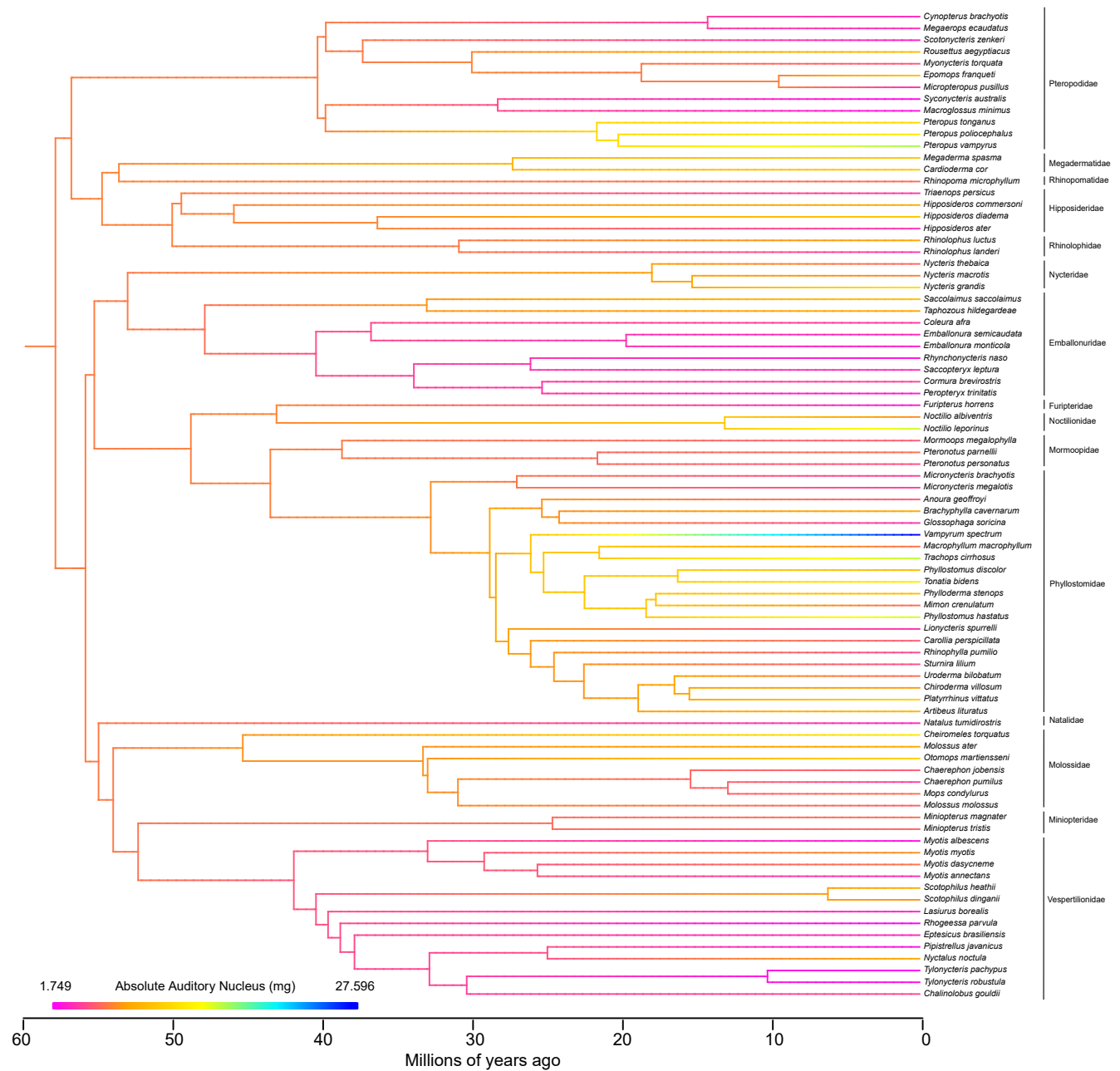
Supplementary Figure 1f.



Supplementary Figure 1g.



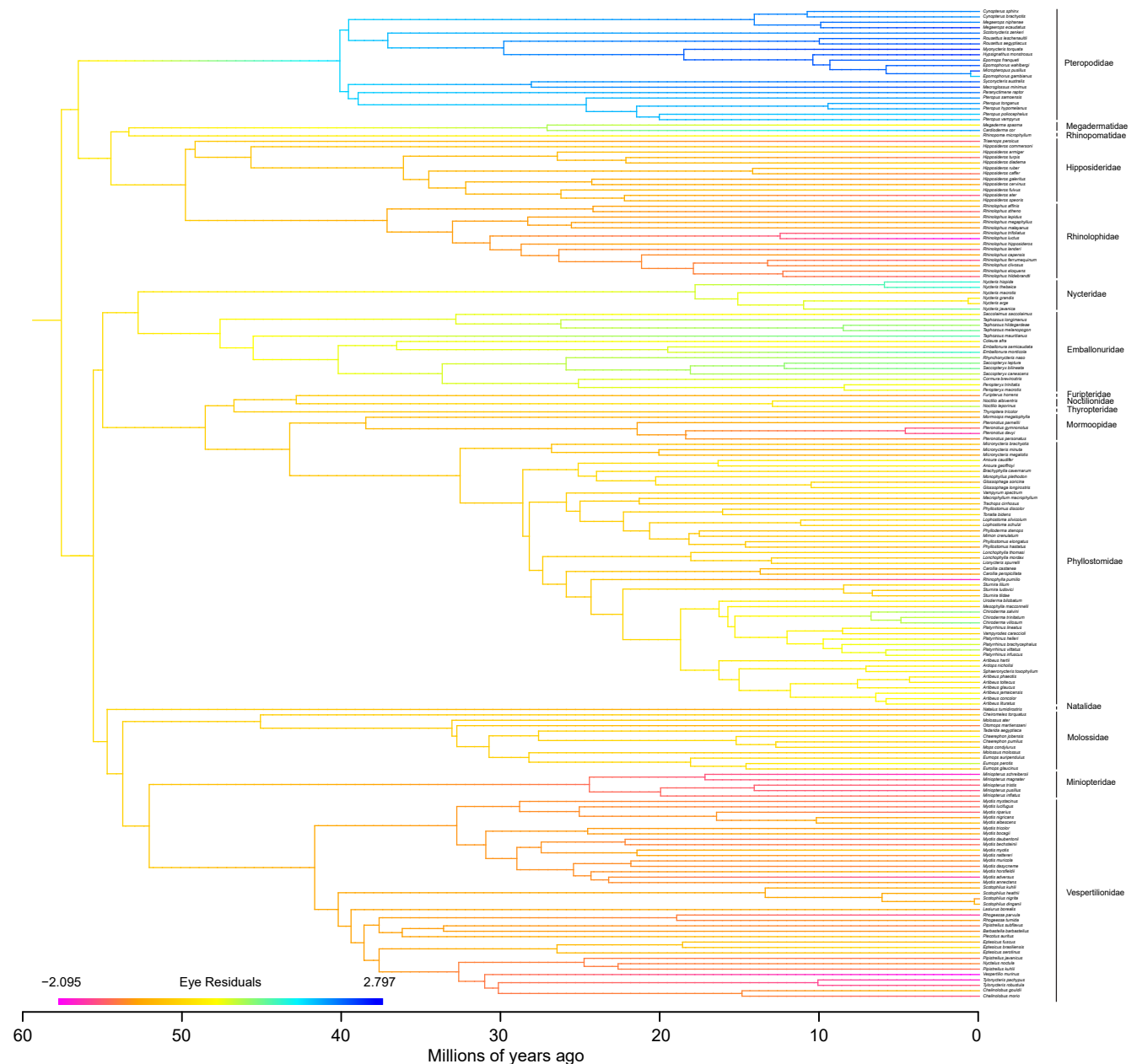
Supplementary Figure 1h.



Supplementary Figure 1i.

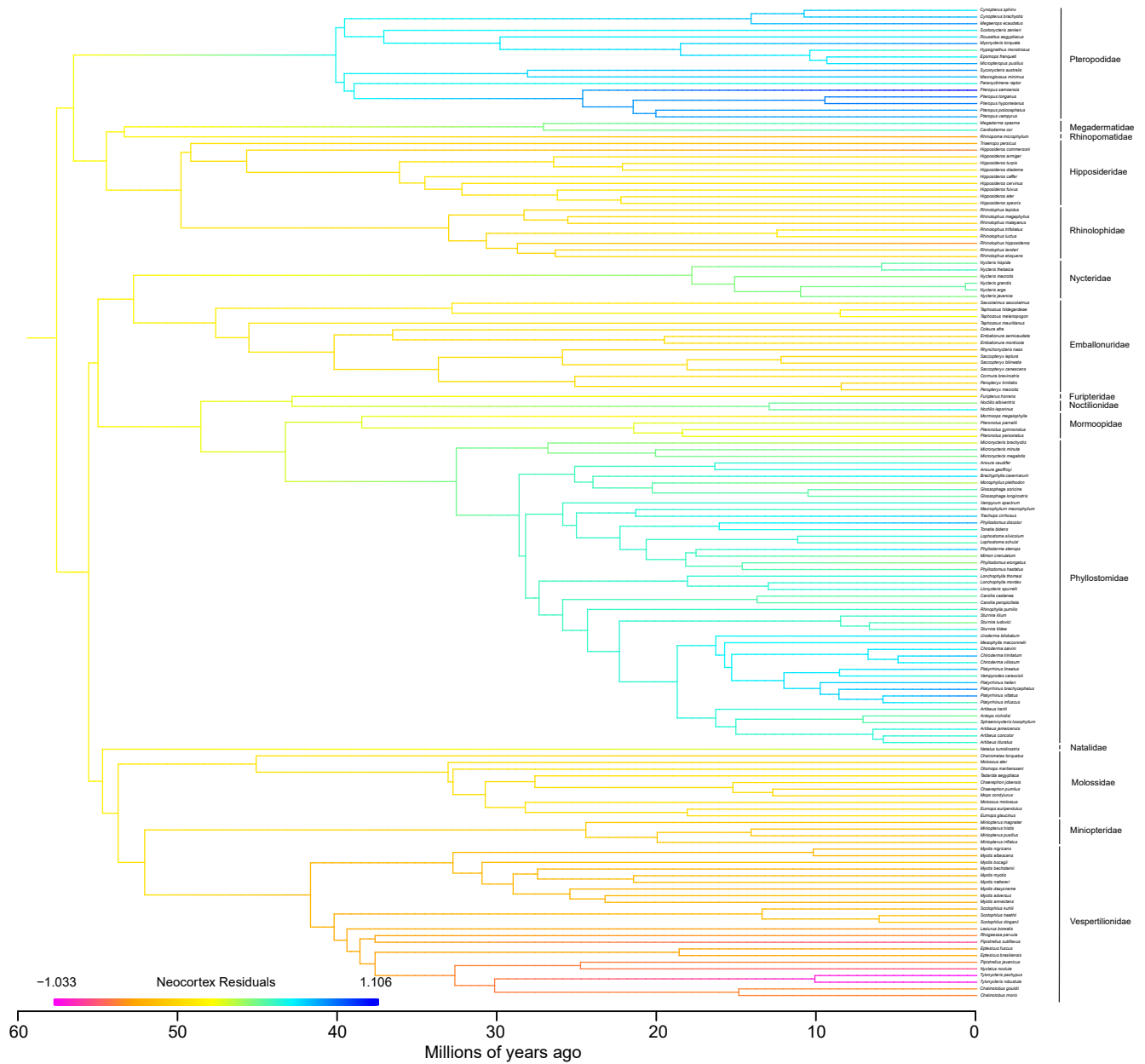
## Supplementary Figure 2. Phylogenetic reconstructions of mass-corrected brain regions.

Estimates of the maximum likelihood (ML) ancestral states for mass-corrected, (a) eye, (b) brain, and (c-h) brain regions. Phylogenetically informed mass-residuals were generated and mapped onto the tree by estimating states at internal nodes using ML and interpolating the states along each edge. The phylogeny and variation in the residuals were combined to visualize the increase and decrease of these traits in different lineages over evolutionary time. The color gradient indicates trait size, as mapped onto the phylogeny (families indicated along right side).

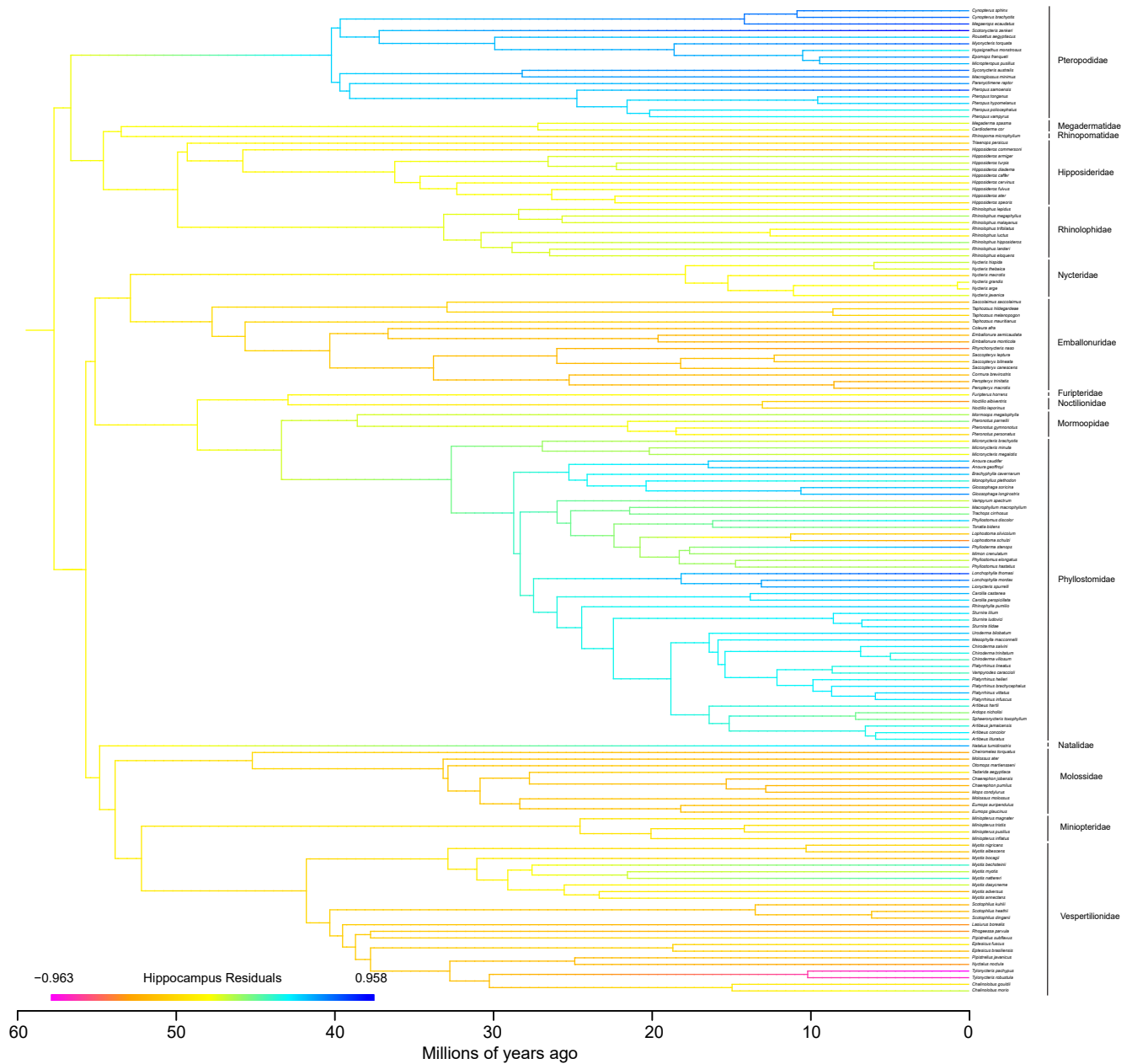


Supplementary Figure 2a.

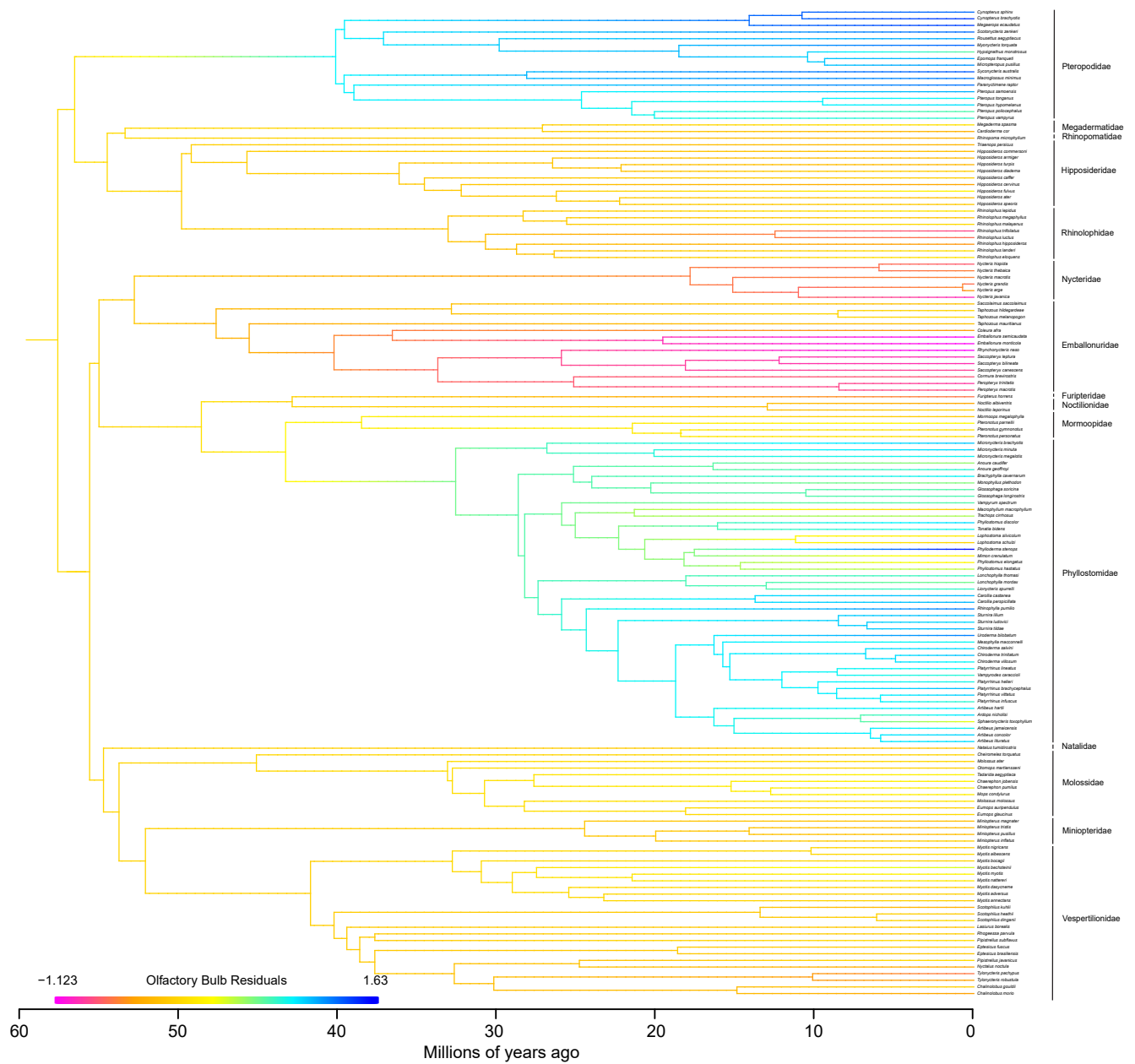




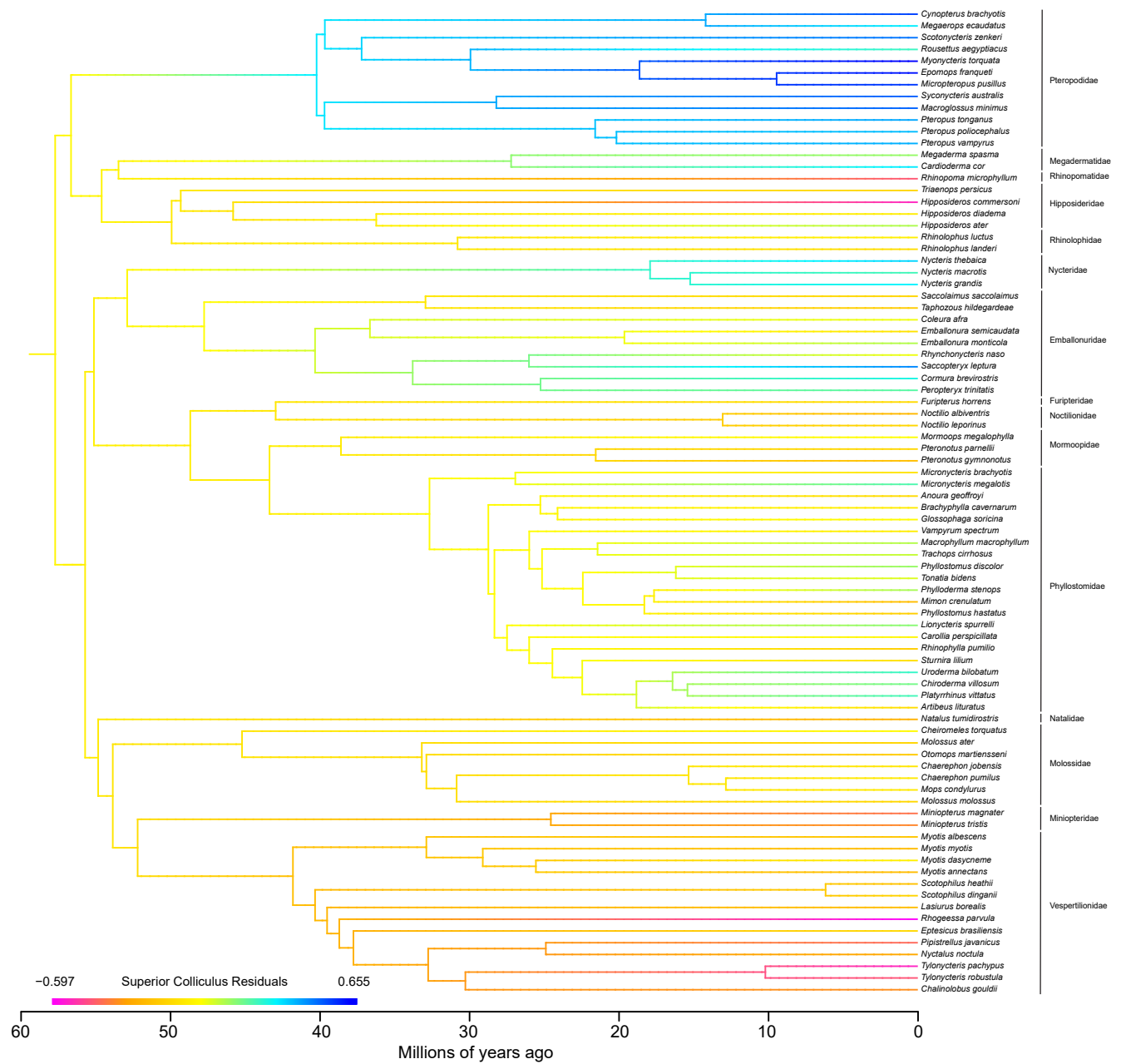
Supplementary Figure 2c.



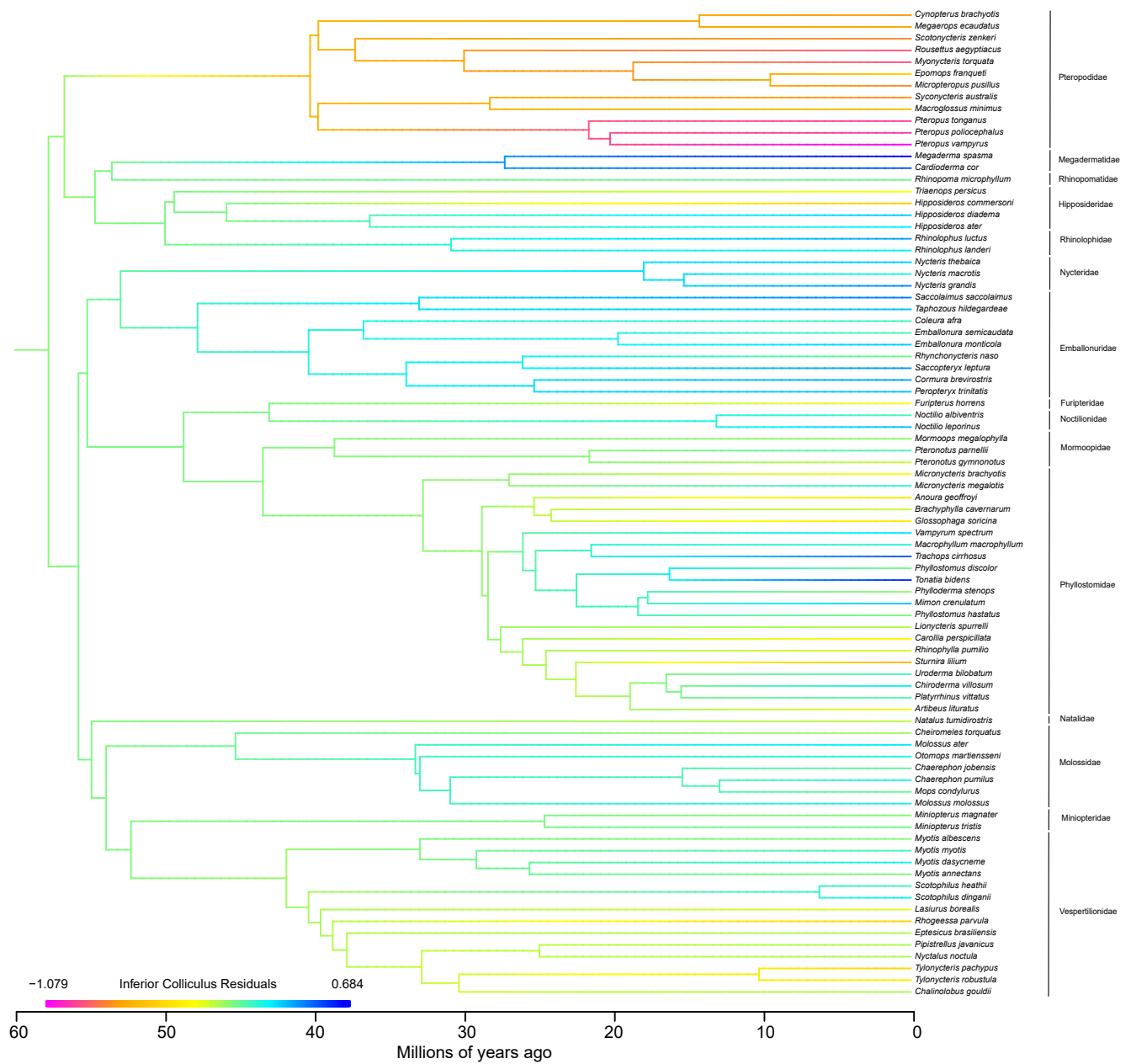
**Supplementary Figure 2d.**



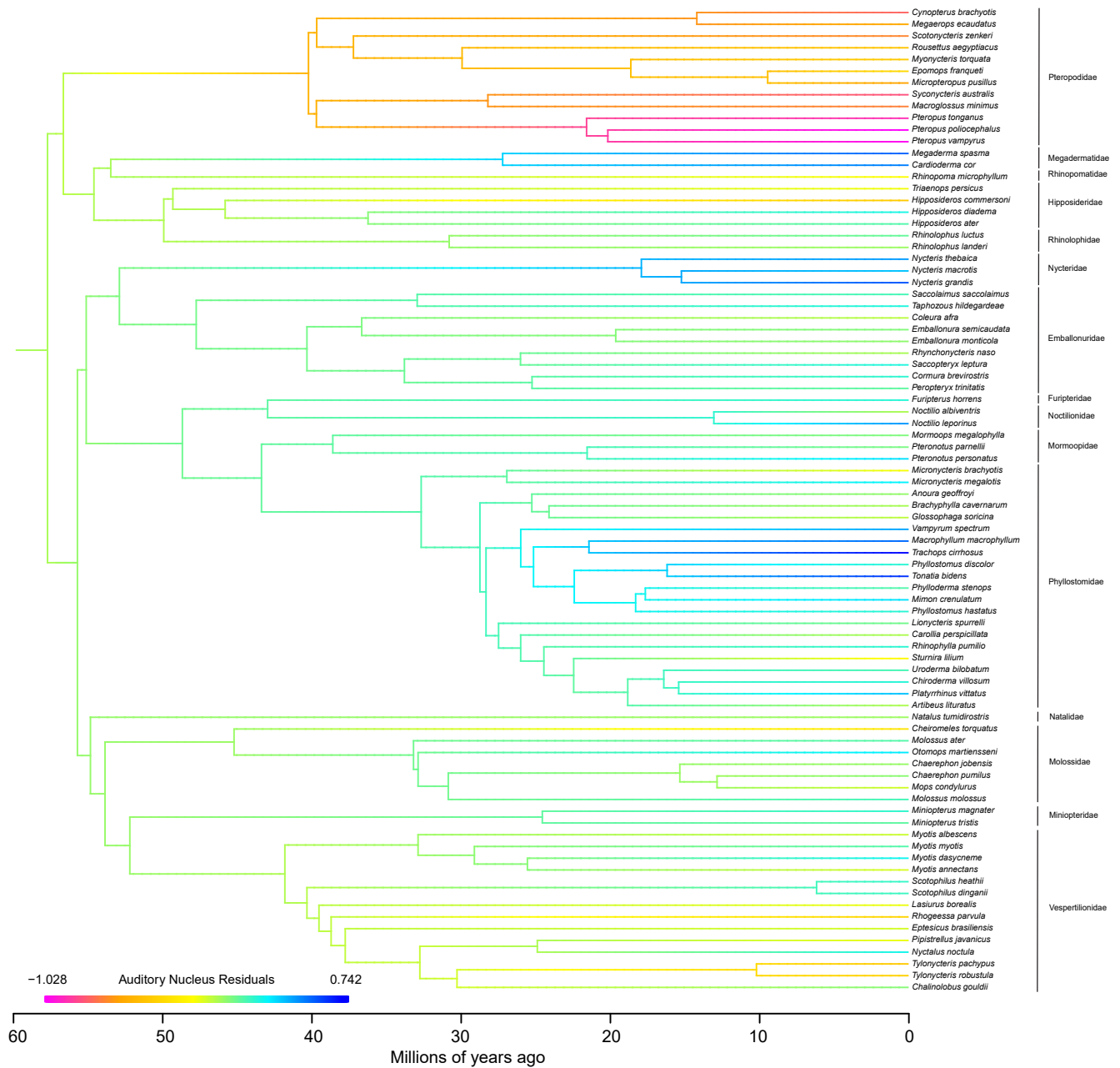
Supplementary Figure 2e.



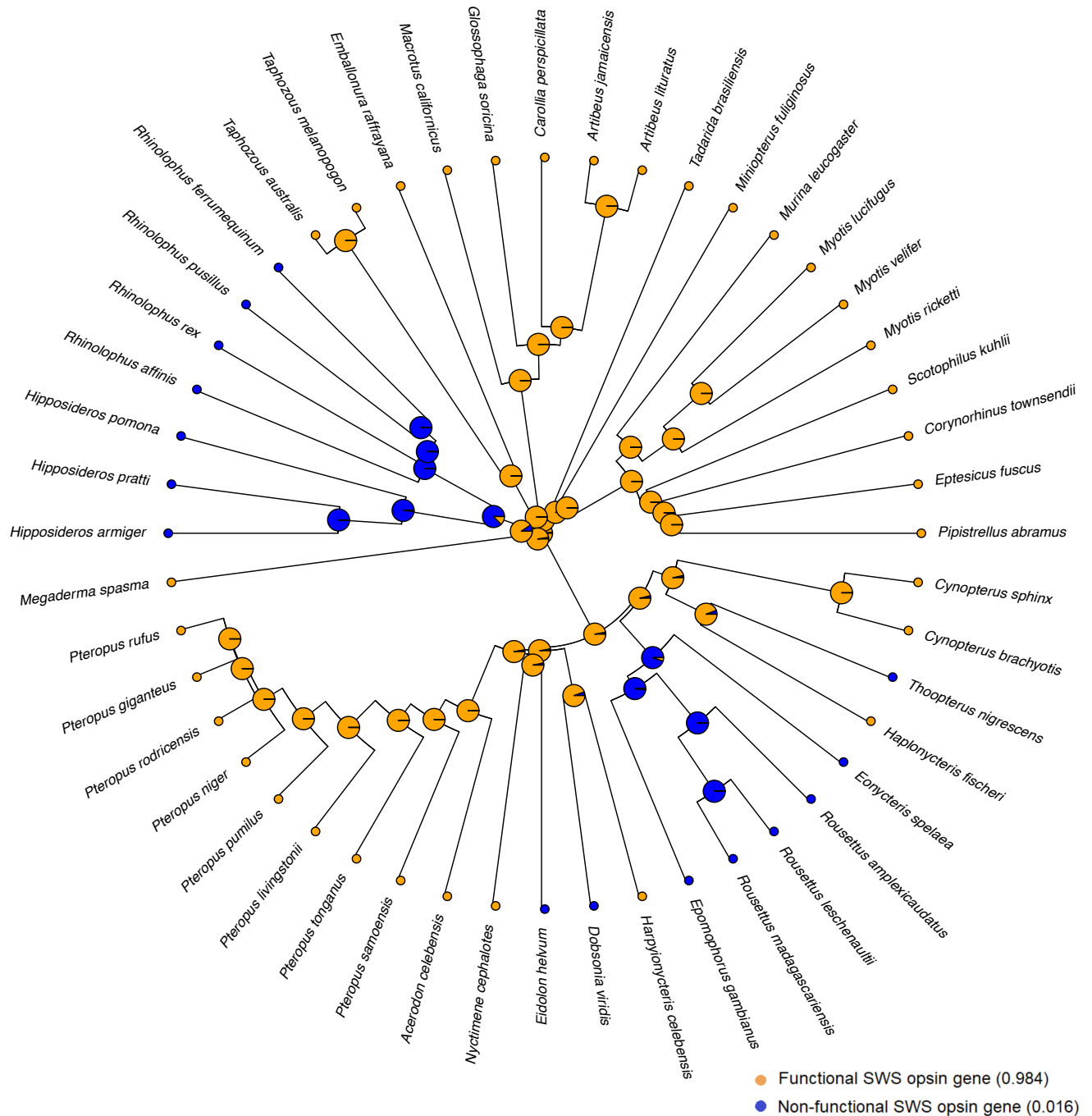
Supplementary Figure 2f.



**Supplementary Figure 2g.**



**Supplementary Figure 2h.**



**Supplementary Figure 3. The ancestral state estimates of short-wavelength sensitive (SWS) opsin gene functionality.** Bat species ( $N=41$ ) were categorized as having either (i) functional or (ii) non-functional SWS opsin genes and the functionality of the ancestral SWS opsin gene was estimated under an equal rates model of evolution. These marginal ancestral states (i.e. Bayesian posterior probabilities), have been overlain on the phylogeny. We found support for a functional SWS opsin in the ancestral bat (Bayesian posterior probabilities: functional SWS opsin gene: 0.971; non-functional SWS opsin gene: 0.029).

**Supplementary Table 1:** *Post hoc* comparisons of phylogenetically adjusted data (log transformed body mass, brain volume, eye mass, and brain regions) among foraging strategies (t-values and Holm-Bonferroni corrected p-values in parentheses).

| Foraging Strategy | P-LE                         | P-NLE                        |
|-------------------|------------------------------|------------------------------|
| <b>A-LE</b>       | <sup>a</sup> -1.446 (1.000)  | <sup>a</sup> -8.983 (0.03)   |
|                   | <sup>b</sup> -17.254 (0.003) | <sup>b</sup> -17.254(0.003)  |
|                   | <sup>c</sup> -4.829 (1.000)  | <sup>c</sup> -11.550 (0.003) |
|                   | <sup>d</sup> -4.813 (0.302)  | <sup>d</sup> -10.121 (0.003) |
|                   | <sup>e</sup> -6.544 (1.000)  | <sup>e</sup> -12.098 (0.003) |
|                   | <sup>f</sup> -7.280 (0.10)   | <sup>f</sup> -12.000 (0.003) |
|                   | <sup>g</sup> -1.050(0.637)   | <sup>g</sup> -7.339 (0.018)  |
|                   | <sup>h</sup> 0.792 (1.000)   | <sup>h</sup> 0.262 (1.000)   |
|                   | <sup>i</sup> -0.201 (1.000)  | <sup>i</sup> 0.179 (1.000)   |
| <b>P-LE</b>       |                              | <sup>a</sup> -6.666 (0.21)   |
|                   |                              | <sup>b</sup> -12.029 (0.012) |
|                   |                              | <sup>c</sup> -6.517 (0.218)  |
|                   |                              | <sup>d</sup> -5.590 (0.302)  |
|                   |                              | <sup>e</sup> -6.147 (0.164)  |
|                   |                              | <sup>f</sup> -5.560 (0.160)  |
|                   |                              | <sup>g</sup> -4.729 (0.120)  |
|                   |                              | <sup>h</sup> -0.423 (1.000)  |
|                   |                              | <sup>i</sup> 0.293 (1.000)   |

<sup>a</sup> Log Mass

<sup>b</sup> Log Eye

<sup>c</sup> Log Brain

<sup>d</sup> Log Neocortex

<sup>e</sup> Log Hippocampus

<sup>f</sup> Log Olfactory Bulb

<sup>g</sup> Log Superior Colliculus

<sup>h</sup> Log Inferior Colliculus

<sup>i</sup> Log Auditory Nucleus

A-LE - Predatory Laryngeal Echolocator

P-LE - Phytophagous Laryngeal Echolocator

P-NLE - Phytophagous Non-Laryngeal Echolocator

**Supplementary Table 2:** *Post hoc* comparisons of phylogenetically adjusted data (mass residuals of brain volume, eye mass, and brain regions) among foraging strategies (t-values and Holm-Bonferroni corrected p-values in parentheses).

| Foraging Strategy | P-LE                         | P-NLE                        |
|-------------------|------------------------------|------------------------------|
| <b>A-LE</b>       | <sup>a</sup> -4.146 (0.340)  | <sup>a</sup> -16.081 (0.003) |
|                   | <sup>b</sup> -11.489 (0.012) | <sup>b</sup> -11.633 (0.006) |
|                   | <sup>c</sup> -9.641 (0.022)  | <sup>c</sup> -9.915 (0.006)  |
|                   | <sup>d</sup> -12.588 (0.003) | <sup>d</sup> -11.916(0.003)  |
|                   | <sup>d</sup> -12.703 (0.003) | <sup>d</sup> -12.087(0.003)  |
|                   | <sup>f</sup> -1.634 (0.456)  | <sup>f</sup> -8.438 (0.009)  |
|                   | <sup>g</sup> 3.370(0.113)    | <sup>g</sup> 12.016 (0.003)  |
|                   | <sup>h</sup> 0.689 (0.751)   | <sup>h</sup> 10.775 (0.006)  |
| <b>P-LE</b>       |                              | <sup>a</sup> -10.856(0.022)  |
|                   |                              | <sup>b</sup> -1.982 (0.644)  |
|                   |                              | <sup>c</sup> -2.143 (0.588)  |
|                   |                              | <sup>d</sup> -1.897(0.623)   |
|                   |                              | <sup>e</sup> -1.968 (0.609)  |
|                   |                              | <sup>f</sup> -5.102 (0.114)  |
|                   |                              | <sup>g</sup> 6.445(0.028)    |
|                   |                              | <sup>h</sup> 7.611 (0.008)   |

<sup>a</sup> Log Eye

<sup>b</sup> Log Brain

<sup>c</sup> Log Neocortex

<sup>d</sup> Log Hippocampus

<sup>e</sup> Log Olfactory Bulb

<sup>f</sup> Log Superior Colliculus

<sup>g</sup> Log Inferior Colliculus

<sup>h</sup> Log Auditory Nucleus

A-LE - Predatory Laryngeal Echolocator

P-LE - Phytophagous Laryngeal Echolocator

P-NLE - Phytophagous Non-Laryngeal Echolocator

**Supplementary Table 3:** *Post hoc* comparisons of phylogenetically adjusted data (log transformed body mass, brain volume, eye mass, and brain regions) among echolocating call type (t-values and Holm-Bonferroni corrected p-values in parentheses).

| CALL TYPE | DH                         | MH                          | NLE                          |
|-----------|----------------------------|-----------------------------|------------------------------|
| CF        | <sup>a</sup> 1.289 (1.000) | <sup>a</sup> -0.189 (1.000) | <sup>a</sup> -6.911 (0.175)  |
|           | <sup>b</sup> 1.127 (0.757) | <sup>b</sup> -4.794 (0.412) | <sup>b</sup> -16.542(0.006)  |
|           | <sup>c</sup> 2.112 (1.000) | <sup>c</sup> -2.119 (1.000) | <sup>c</sup> -9.100 (0.025)  |
|           | <sup>d</sup> 2.119 (0.906) | <sup>d</sup> -2.236 (0.906) | <sup>d</sup> -8.020 (0.045)  |
|           | <sup>e</sup> 2.302 (0.846) | <sup>e</sup> -1.218 (0.846) | <sup>e</sup> -8.167 (0.040)  |
|           | <sup>f</sup> 0.272 (1.000) | <sup>f</sup> -2.304 (1.000) | <sup>f</sup> -8.508 (0.030)  |
|           | <sup>g</sup> 1.959(0.903)  | <sup>g</sup> 0.249 (0.903)  | <sup>g</sup> -4.617 (0.085)  |
|           | <sup>h</sup> 1.992 (1.000) | <sup>h</sup> 1.002 (1.000)  | <sup>h</sup> 1.144 (1.000)   |
|           | <sup>i</sup> 1.614 (1.000) | <sup>i</sup> 0.332 (1.000)  | <sup>i</sup> 0.782 (1.000)   |
| DH        |                            | <sup>a</sup> -1.914 (1.000) | <sup>a</sup> -8.873 (0.120)  |
|           |                            | <sup>b</sup> -7.390 (0.267) | <sup>b</sup> -19.486 (0.006) |
|           |                            | <sup>c</sup> -5.371 (0.621) | <sup>c</sup> -12.055 (0.024) |
|           |                            | <sup>d</sup> -5.647 (0.420) | <sup>d</sup> -10.942 (0.006) |
|           |                            | <sup>e</sup> -4.637 (0.654) | <sup>e</sup> -11.276 (0.012) |
|           |                            | <sup>f</sup> -3.222 (1.000) | <sup>f</sup> -9.766 (0.030)  |
|           |                            | <sup>g</sup> -2.597 (0.903) | <sup>g</sup> -7.925 (0.018)  |
|           |                            | <sup>h</sup> -1.573 (1.000) | <sup>h</sup> -0.776 (1.000)  |
|           |                            | <sup>i</sup> -1.960 (1.000) | <sup>i</sup> -0.809 (1.000)  |
| MH        |                            |                             | <sup>a</sup> -7.888 (0.175)  |
|           |                            |                             | <sup>b</sup> -15.093 (0.006) |
|           |                            |                             | <sup>c</sup> -8.732 (0.088)  |
|           |                            |                             | <sup>d</sup> -7.661 (0.164)  |
|           |                            |                             | <sup>e</sup> -8.774 (0.084)  |
|           |                            |                             | <sup>f</sup> -8.188 (0.064)  |
|           |                            |                             | <sup>g</sup> -6.446 (0.085)  |
|           |                            |                             | <sup>h</sup> 0.405 (1.000)   |
|           |                            |                             | <sup>i</sup> 0.673(1.000)    |

<sup>a</sup> Log Mass

<sup>b</sup> Log Eye

<sup>c</sup> Log Brain

<sup>d</sup> Log Neocortex

<sup>e</sup> Log Hippocampus

<sup>f</sup> Log Olfactory Bulb

<sup>g</sup> Log Superior Colliculus

<sup>h</sup> Log Inferior Colliculus

<sup>i</sup> Log Auditory Nucleus

CF - Constant Frequency

DH - Fundamental harmonic frequency modulated

MH - Multi-harmonic

NLE - Non-laryngeal Echolocators

**Supplementary Table 4:** *Post hoc* comparisons of phylogenetically adjusted data (mass residuals of total brain volume, eye mass, and brain regions) among echolocating call type (t-values and Holm-Bonferroni corrected p-values in parentheses).

| CALL TYPE | DH                         | MH                           | NLE                          |
|-----------|----------------------------|------------------------------|------------------------------|
| CF        | <sup>a</sup> 0.334 (0.929) | <sup>a</sup> -6.938 (0.128)  | <sup>a</sup> -17.418 (0.006) |
|           | <sup>b</sup> 3.167(0.362)  | <sup>b</sup> -6.433 (0.201)  | <sup>b</sup> -19.640 (0.028) |
|           | <sup>c</sup> 3.798 (0.246) | <sup>c</sup> -6.365 (0.126)  | <sup>c</sup> -19.343 (0.008) |
|           | <sup>d</sup> 2.914 (0.596) | <sup>d</sup> -2.362 (0.596)  | <sup>d</sup> -16.403 (0.090) |
|           | <sup>e</sup> 0.659 (0.815) | <sup>e</sup> -3.826 (0.693)  | <sup>e</sup> -7.532 (0.030)  |
|           | <sup>f</sup> 1.301 (0.477) | <sup>f</sup> -2.772 (0.214)  | <sup>f</sup> -7.786 (0.006)  |
|           | <sup>g</sup> 1.325 (1.000) | <sup>g</sup> -0.008 (1.000)  | <sup>g</sup> 8.245 (0.006)   |
|           | <sup>h</sup> 0.462 (0.800) | <sup>h</sup> -1.769 (0.657)  | <sup>h</sup> 7.416 (0.006)   |
| DH        |                            | <sup>a</sup> -9.005 (0.099)  | <sup>a</sup> -19.754(0.006)  |
|           |                            | <sup>b</sup> -12.074 (0.010) | <sup>b</sup> -13.602 (0.006) |
|           |                            | <sup>c</sup> 13.042 (0.006)  | <sup>c</sup> -13.985(0.006)  |
|           |                            | <sup>d</sup> -6.884(0.286)   | <sup>d</sup> -9.874 (0.012)  |
|           |                            | <sup>e</sup> -3.840 (0.693)  | <sup>e</sup> -7.808 (0.693)  |
|           |                            | <sup>f</sup> -5.911 (0.069)  | <sup>f</sup> -11.150 (0.006) |
|           |                            | <sup>g</sup> -2.007 (1.000)  | <sup>g</sup> 8.819 (0.012)   |
|           |                            | <sup>h</sup> -3.217 (0.657)  | <sup>h</sup> 8.739 (0.012)   |
| MH        |                            |                              | <sup>a</sup> -14.163 (0.008) |
|           |                            |                              | <sup>b</sup> -5.545 (0.362)  |
|           |                            |                              | <sup>c</sup> -5.465 (0.246)  |
|           |                            |                              | <sup>d</sup> -5.585 (0.351)  |
|           |                            |                              | <sup>e</sup> -5.607(0.380)   |
|           |                            |                              | <sup>f</sup> -7.295 (0.040)  |
|           |                            |                              | <sup>g</sup> 11.022 (0.006)  |
|           |                            |                              | <sup>h</sup> 11.888 (0.006)  |

<sup>a</sup> Log Eye

<sup>b</sup> Log Brain

<sup>c</sup> Residuals (Log Neocortex Log Mass)

<sup>d</sup> Residuals (Log Hippocampus Log Mass)

<sup>e</sup> Residuals (Log Olfactory Bulb Log Mass)

<sup>f</sup> Residuals (Log Superior Colliculus Log Mass)

<sup>g</sup> Residuals (Log Inferior Colliculus Log Mass)

<sup>h</sup> Residuals (Log Auditory Nucleus Log Mass)

CF - Constant Frequency

DH - Fundamental harmonic frequency modulated calls

MH - Multi-Harmonic

NLE - Non-laryngeal Echolocators

**Supplementary Table 5:** *Post hoc* comparisons of phylogenetically adjusted data (log transformed body mass, brain volume, eye mass, and brain regions) among call type in predatory bats (t-values and Holm-Bonferroni corrected p-values in parentheses).

| CALL TYPE | DH                         | MH                          |
|-----------|----------------------------|-----------------------------|
| CF        | <sup>a</sup> 1.423 (1.000) | <sup>a</sup> -0.209 (1.000) |
|           | <sup>b</sup> 1.118 (0.739) | <sup>b</sup> -4.754 (0.386) |
|           | <sup>c</sup> 2.273 (1.000) | <sup>c</sup> -2.281 (1.000) |
|           | <sup>d</sup> 2.262 (0.802) | <sup>d</sup> -2.387 (0.802) |
|           | <sup>e</sup> 2.376 (0.792) | <sup>e</sup> -1.258 (0.792) |
|           | <sup>f</sup> 0.269 (1.000) | <sup>f</sup> -2.281(1.000)  |
|           | <sup>g</sup> 2.167(0.672)  | <sup>g</sup> 0.275 (0.867)  |
|           | <sup>h</sup> 2.083 (0.735) | <sup>h</sup> 1.048(1.000)   |
|           | <sup>i</sup> 1.692 (1.000) | <sup>i</sup> 0.348 (1.000)  |
| DH        |                            | <sup>a</sup> -2.113 (1.000) |
|           |                            | <sup>b</sup> -7.329 (0.300) |
|           |                            | <sup>c</sup> -5.780 (0.495) |
|           |                            | <sup>d</sup> -6.029 (0.333) |
|           |                            | <sup>e</sup> -4.786(0.591)  |
|           |                            | <sup>f</sup> -3.189 (1.000) |
|           |                            | <sup>g</sup> -2.871 (0.672) |
|           |                            | <sup>h</sup> -1.644 (1.000) |
|           |                            | <sup>i</sup> -2.054 (1.000) |

<sup>a</sup> Log Mass

<sup>b</sup> Log Eye

<sup>c</sup> Log Brain

<sup>d</sup> Log Neocortex

<sup>e</sup> Log Hippocampus

<sup>f</sup> Log Olfactory Bulb

<sup>g</sup> Log Superior Colliculus

<sup>h</sup> Log Inferior Colliculus

<sup>i</sup> Log Auditory Nucleus

CF - Constant Frequency

DH - Fundamental harmonic frequency modulated

MH - Multi-harmonic

**Supplementary Table 6:** *Post hoc* comparisons of phylogenetically adjusted data (mass residuals of total brain volume, eye mass, and brain regions) among call type in predatory bats (t-values and Holm-Bonferroni corrected p-values in parentheses).

| CALL TYPE | DH                          | MH                           |
|-----------|-----------------------------|------------------------------|
| CF        | <sup>a</sup> 0.229 (0.940)  | <sup>a</sup> -6.669 (0.129)  |
|           | <sup>b</sup> 3.048 (0.370)  | <sup>b</sup> -6.144 (0.182)  |
|           | <sup>c</sup> 3.660 (0.192)  | <sup>c</sup> -6.175 (0.090)  |
|           | <sup>d</sup> 2.769 (0.708)  | <sup>d</sup> -2.262 (0.708)  |
|           | <sup>e</sup> -0.688 (0.829) | <sup>e</sup> -3.697 (0.732)  |
|           | <sup>f</sup> 1.352 (0.495)  | <sup>f</sup> -2.585 (0.280)  |
|           | <sup>g</sup> 1.006 (1.000)  | <sup>g</sup> -0.206 (1.000)  |
|           | <sup>h</sup> 0.240 (0.883)  | <sup>h</sup> -1.972 (0.693)  |
| DH        |                             | <sup>a</sup> -8.536 (0.129)  |
|           |                             | <sup>b</sup> -11.562 (0.182) |
|           |                             | <sup>c</sup> -12.619 (0.006) |
|           |                             | <sup>d</sup> -6.563 (0.252)  |
|           |                             | <sup>e</sup> -3.641 (0.732)  |
|           |                             | <sup>f</sup> -5.722 (0.090)  |
|           |                             | <sup>g</sup> -1.810 (1.000)  |
|           |                             | <sup>h</sup> -3.172 (0.693)  |

<sup>a</sup> Log Eye

<sup>b</sup> Log Brain

<sup>c</sup> Residuals (Log Neocortex Log Mass)

<sup>d</sup> Residuals (Log Hippocampus Log Mass)

<sup>e</sup> Residuals (Log Olfactory Bulb Log Mass)

<sup>f</sup> Residuals (Log Superior Colliculus Log Mass)

<sup>g</sup> Residuals (Log Inferior Colliculus Log Mass)

<sup>h</sup> Residuals (Log Auditory Nucleus Log Mass)

CF - Constant Frequency

DH - Fundamental harmonic frequency modulated calls

MH - Multi-Harmonic

**Supplementary Table 7.** Species categorized as having either a functional (Yes) or non-functional (No) short-wave opsin (SWS) gene. Asterisk (\*) indicates species in our eyesize dataset. Bold Lettering indicates predatory species used in binary CF versus non-CF test.

| Family           | Species                                  | Functional SWS |
|------------------|------------------------------------------|----------------|
| Emballonuridae   | <b><i>Emballonura raffrayana</i></b>     | Yes            |
| Emballonuridae   | <b><i>Taphozous australis</i></b>        | Yes            |
| Emballonuridae   | <b>*<i>Taphozous melanopogon</i></b>     | Yes            |
| Hipposideridae   | <b>*<i>Hipposideros armiger</i></b>      | No             |
| Hipposideridae   | <b><i>Hipposideros pomona</i></b>        | No             |
| Hipposideridae   | <b><i>Hipposideros pratti</i></b>        | No             |
| Megadermatidae   | <b>*<i>Megaderma spasma</i></b>          | Yes            |
| Miniopteridae    | <b><i>Miniopterus fuliginosus</i></b>    | Yes            |
| Phyllostomidae   | <b>*<i>Artibeus jamaicensis</i></b>      | Yes            |
| Phyllostomidae   | <b>*<i>Artibeus lituratus</i></b>        | Yes            |
| Phyllostomidae   | <b>*<i>Carollia perspicillata</i></b>    | Yes            |
| Phyllostomidae   | <b>*<i>Glossophaga soricina</i></b>      | Yes            |
| Pteropodidae     | <b><i>Acerodon celebensis</i></b>        | Yes            |
| Pteropodidae     | <b>*<i>Cynopterus brachyotis</i></b>     | Yes            |
| Pteropodidae     | <b><i>Dobsonia viridis</i></b>           | No             |
| Pteropodidae     | <b><i>Eidolon helvum</i></b>             | No             |
| Pteropodidae     | <b><i>Eonycteris spelaea</i></b>         | No             |
| Pteropodidae     | <b>*<i>Epomophorus gambianus</i></b>     | No             |
| Pteropodidae     | <b><i>Haplonycteris fischeri</i></b>     | Yes            |
| Pteropodidae     | <b><i>Harpyionycteris celebensis</i></b> | Yes            |
| Pteropodidae     | <b><i>Nyctimene cephalotes</i></b>       | Yes            |
| Pteropodidae     | <b><i>Pteropus giganteus</i></b>         | Yes            |
| Pteropodidae     | <b><i>Pteropus livingstonii</i></b>      | Yes            |
| Pteropodidae     | <b><i>Pteropus niger</i></b>             | Yes            |
| Pteropodidae     | <b><i>Pteropus pumilus</i></b>           | Yes            |
| Pteropodidae     | <b><i>Pteropus rodricensis</i></b>       | Yes            |
| Pteropodidae     | <b><i>Pteropus rufus</i></b>             | Yes            |
| Pteropodidae     | <b>*<i>Pteropus samoensis</i></b>        | Yes            |
| Pteropodidae     | <b>*<i>Pteropus tonganus</i></b>         | Yes            |
| Pteropodidae     | <b><i>Rousettus amplexicaudatus</i></b>  | No             |
| Pteropodidae     | <b><i>Rousettus madagascariensis</i></b> | No             |
| Pteropodidae     | <b><i>Thoospterus nigrescens</i></b>     | No             |
| Rhinolophidae    | <b>*<i>Rhinolophus affinis</i></b>       | No             |
| Rhinolophidae    | <b>*<i>Rhinolophus ferrumequinu</i></b>  | No             |
| Rhinolophidae    | <b><i>Rhinolophus pusillus</i></b>       | No             |
| Rhinolophidae    | <b><i>Rhinolophus rex</i></b>            | No             |
| Vespertilionidae | <b><i>Murina leucogaster</i></b>         | Yes            |
| Vespertilionidae | <b>*<i>Myotis lucifugus</i></b>          | Yes            |
| Vespertilionidae | <b><i>Myotis ricketti</i></b>            | Yes            |
| Vespertilionidae | <b><i>Myotis velifer</i></b>             | Yes            |
| Vespertilionidae | <b><i>Pipistrellus abramus</i></b>       | Yes            |

**Supplementary Table 8.** Specimen numbers for the skulls from Royal Ontario Museum (ROM) or Museum of Natural History in Denmark (MNHD).

| Species                         | Specimen # | Source | Species                       | Specimen #  | Source |
|---------------------------------|------------|--------|-------------------------------|-------------|--------|
| <i>Anoura caudifer</i>          | 91179      | ROM    | <i>Myotis myotis</i>          | 35341       | ROM    |
|                                 | 70909      | ROM    |                               | 91218       | ROM    |
|                                 | 78418      | ROM    |                               | 35343       | ROM    |
| <i>Anoura geoffroyi</i>         | 78489      | ROM    | <i>Myotis mystacinus</i>      | 94103       | ROM    |
|                                 | 78494      | ROM    |                               | 102816      | ROM    |
|                                 | 78490      | ROM    | <i>Myotis nattereri</i>       | KAT6.31132  | MNHD   |
| <i>Ardops nichollsi</i>         | 71467      | ROM    |                               | KAT5.7436   | MNHD   |
|                                 | 71463      | ROM    | <i>Myotis nigricans</i>       | 78791       | ROM    |
| <i>Artibeus concolor</i>        | 47110      | ROM    |                               | 78781       | ROM    |
|                                 | 59924      | ROM    | <i>Myotis riparius</i>        | 103988      | ROM    |
| <i>Artibeus glaucus</i>         | 51851      | ROM    |                               | 104066      | ROM    |
|                                 | 53609      | ROM    | <i>Myotis tricolor</i>        | 71049       | ROM    |
|                                 | 51853      | ROM    |                               | 78629       | ROM    |
| <i>Artibeus hartii</i>          | 84977      | ROM    | <i>Natalus tumidirostris</i>  | 31434       | ROM    |
| <i>Artibeus jamaicensis</i>     | 95323      | ROM    |                               | 31451       | ROM    |
|                                 | 95271      | ROM    | <i>Noctilio albiventris</i>   | 78011       | ROM    |
|                                 | 95325      | ROM    | <i>Noctilio leporinus</i>     | 940         | MNHD   |
| <i>Artibeus lituratus</i>       | 33319      | ROM    | <i>Nyctalus noctula</i>       | SR16        | MNHD   |
|                                 | 33296      | ROM    |                               | L39.3075    | MNHD   |
|                                 | 33297      | ROM    |                               | KAT22.21634 | MNHD   |
| <i>Artibeus phaeotis</i>        | 33595      | ROM    |                               | CHVVE12     | MNHD   |
|                                 | 33541      | ROM    | <i>Nycteris arge</i>          | 80317       | ROM    |
|                                 | 33591      | ROM    |                               | 46512       | ROM    |
| <i>Artibeus toltecus</i>        | 85961      | ROM    | <i>Nycteris grandis</i>       | 56109       | ROM    |
|                                 | 85891      | ROM    |                               | 56256       | ROM    |
| <i>Barbastella barbastellus</i> | 78690      | ROM    | <i>Nycteris hispida</i>       | 3191        | MNHD   |
|                                 | 78691      | ROM    |                               | 3155        | MNHD   |
| <i>Brachyphylla cavernarum</i>  | 74396      | ROM    |                               | 14702       | MNHD   |
|                                 | 74397      | ROM    |                               | 1471        | MNHD   |
| <i>Cardioderma cor</i>          | 91505      | ROM    |                               | 1054        | MNHD   |
|                                 | 91507      | ROM    | <i>Nycteris macrotis</i>      | 91174       | ROM    |
| <i>Carollia castanea</i>        | 44975      | ROM    |                               | 73249       | ROM    |
|                                 | 90111      | ROM    | <i>Nycteris javanica</i>      | L858.3089   | MNHD   |
| <i>Carollia perspicillata</i>   | 78672      | ROM    |                               | 99          | MNHD   |
|                                 | 58717      | ROM    | <i>Nycteris thebaica</i>      | 40275       | ROM    |
|                                 | 58716      | ROM    | <i>Otomops martiensseni</i>   | 36520       | ROM    |
| <i>Chalinolobus gouldii</i>     | 78355      | ROM    |                               | 36523       | ROM    |
|                                 | 102789     | ROM    | <i>Paranyctimene raptor</i>   | 72906       | ROM    |
| <i>Chalinolobus morio</i>       | 58403      | ROM    |                               | 58429       | ROM    |
|                                 | 102788     | ROM    | <i>Peropteryx macrotis</i>    | L54         | MNHD   |
| <i>Chaerephon jobensis</i>      | 696        | MNHD   |                               | 546         | MNHD   |
| <i>Chaerephon pumilus</i>       | CN2326     | MNHD   | <i>Peropteryx trinitatis</i>  | 107831      | ROM    |
|                                 | CN2324     | MNHD   |                               | 107922      | ROM    |
|                                 | CN2323     | MNHD   | <i>Phylloderma stenops</i>    | 47455       | ROM    |
|                                 | CN2321     | MNHD   |                               | 35244       | ROM    |
| <i>Cheiromeles torquatus</i>    | 44150      | ROM    | <i>Phyllostomus discolor</i>  | 75053       | ROM    |
|                                 | 38039      | ROM    |                               | 44869       | ROM    |
| <i>Chiroderma salvini</i>       | 78472      | ROM    | <i>Phyllostomus elongatus</i> | 105673      | ROM    |
|                                 | 91194      | ROM    |                               | 57249       | ROM    |
| <i>Chiroderma trinitatum</i>    | 78692      | ROM    | <i>Phyllostomus hastatus</i>  | 32420       | ROM    |

|                                 |          |      |                                    |              |      |
|---------------------------------|----------|------|------------------------------------|--------------|------|
|                                 | 96246    | ROM  |                                    | 105306       | ROM  |
|                                 | 97461    | ROM  |                                    | 105358       | ROM  |
| <i>Chiroderma villosum</i>      | 45243    | ROM  | <i>Pipistrellus javanicus</i>      | 86451        | ROM  |
|                                 | 45251    | ROM  | <i>Pipistrellus kuhlii</i>         | 46596        | ROM  |
| <i>Coleura afra</i>             | 36251    | ROM  |                                    | 40145        | ROM  |
|                                 | 36250    | ROM  | <i>Pipistrellus subflavus</i>      | 76304        | ROM  |
| <i>Cormura brevirostris</i>     | 105746   | ROM  |                                    | 76299        | ROM  |
|                                 | 97983    | ROM  | <i>Platyrrhinus brachycephalus</i> | 67483        | ROM  |
| <i>Cynopterus brachyotis</i>    | 48089    | ROM  |                                    | 67501        | ROM  |
|                                 | 46347    | ROM  | <i>Platyrrhinus helleri</i>        | 94252        | ROM  |
|                                 | 48088    | ROM  |                                    | 94222        | ROM  |
| <i>Cynopterus sphinx</i>        | LXX.0099 | MNHD | <i>Platyrrhinus infuscus</i>       | 63225        | ROM  |
| <i>Emballonura monticola</i>    | 38770    | ROM  |                                    | 75079        | ROM  |
|                                 | 38769    | ROM  | <i>Platyrrhinus lineatus</i>       | 78457        | ROM  |
| <i>Emballonura semicaudata</i>  | 82967    | ROM  |                                    | 70919        | ROM  |
|                                 | 79915    | ROM  | <i>Platyrrhinus vittatus</i>       | 97305        | ROM  |
| <i>Epomophorus gambianus</i>    | 56069    | ROM  |                                    | 97306        | ROM  |
| <i>Epomophorus wahlbergi</i>    | 41785    | ROM  | <i>Plecotus auritus</i>            | KAT8.11533   | MNHD |
|                                 | 41786    | ROM  |                                    | KAT7.12431PA | MNHD |
|                                 | 41789    | ROM  |                                    | CHVE6        | MNHD |
| <i>Epomops franqueti</i>        | 43331    | ROM  | <i>Pteronotus davyi</i>            | 96495        | ROM  |
|                                 | 43334    | ROM  |                                    | 96500        | ROM  |
| <i>Eptesicus brasiliensis</i>   | 98114    | ROM  | <i>Pteronotus gymnonotus</i>       | 107925       | ROM  |
| <i>Eptesicus fuscus</i>         | 78288    | ROM  |                                    | 113957       | ROM  |
|                                 | 78176    | ROM  | <i>Pteronotus parnellii</i>        | 101424       | ROM  |
|                                 | 78281    | ROM  |                                    | 101476       | ROM  |
| <i>Eptesicus serotinus</i>      | 78317    | ROM  |                                    | 101360       | ROM  |
|                                 | 78313    | ROM  | <i>Pteronotus personatus</i>       | 45111        | ROM  |
| <i>Eumops auripendulus</i>      | 53965    | ROM  |                                    | 45110        | ROM  |
|                                 | 50195    | ROM  | <i>Pteropus hypomelanus</i>        | 51337        | ROM  |
| <i>Eumops glaucinus</i>         | 57828    | ROM  |                                    | 48126        | ROM  |
|                                 | 57826    | ROM  |                                    | 51343        | ROM  |
| <i>Eumops perotis</i>           | 50201    | ROM  | <i>Pteropus poliocephalus</i>      | 58396        | ROM  |
|                                 | 50953    | ROM  | <i>Pteropus samoensis</i>          | CN2401       | MNHD |
| <i>Furipterus horrens</i>       | 104058   | ROM  |                                    | CN2400       | MNHD |
|                                 | 100202   | ROM  | <i>Pteropus tonganus</i>           | CN2381       | MNHD |
| <i>Glossophaga longirostris</i> | 34099    | ROM  | <i>Pteropus vampyrus</i>           | 48068        | ROM  |
|                                 | 33841    | ROM  |                                    | 48067        | ROM  |
|                                 | 34063    | ROM  | <i>Rhinolophus affinis</i>         | 36736        | ROM  |
| <i>Glossophaga soricina</i>     | 90154    | ROM  |                                    | 31193        | ROM  |
|                                 | 90155    | ROM  | <i>Rhinolophus capensis</i>        | LXX.0098     | MNHD |
| <i>Hipposideros armiger</i>     | 38746    | ROM  | <i>Rhinolophus clivosus</i>        | L59.3167     | MNHD |
|                                 | 38741    | ROM  |                                    | L57.3116     | MNHD |
| <i>Hipposideros ater</i>        | 40734    | ROM  | <i>Rhinolophus eloquens</i>        | 81348        | ROM  |
| <i>Hipposideros caffer</i>      | 50911    | ROM  |                                    | 36314        | ROM  |
|                                 | 46812    | ROM  | <i>Rhinolophus ferrumequinum</i>   | 77744        | ROM  |
| <i>Hipposideros cervinus</i>    | 44063    | ROM  |                                    | 77747        | ROM  |
|                                 | 40968    | ROM  | <i>Rhinolophus hildebrandti</i>    | 64673        | ROM  |
| <i>Hipposideros commersoni</i>  | 68988    | ROM  |                                    | 64481        | ROM  |
|                                 | 56160    | ROM  | <i>Rhinolophus hipposideros</i>    | 35335        | ROM  |
| <i>Hipposideros diadema</i>     | 41409    | ROM  |                                    | 35334        | ROM  |
|                                 | 41408    | ROM  | <i>Rhinolophus landeri</i>         | 50923        | ROM  |
| <i>Hipposideros fulvus</i>      | 104571   | ROM  |                                    | 56104        | ROM  |
|                                 | 104573   | ROM  | <i>Rhinolophus lepidus</i>         | L58.3276     | MNHD |

|                                 |           |      |                                |          |      |
|---------------------------------|-----------|------|--------------------------------|----------|------|
| <i>Hipposideros galeritus</i>   | 43716     | ROM  | <i>Rhinolophus luctus</i>      | 40908    | ROM  |
|                                 | 38197     | ROM  |                                | 86309    | ROM  |
| <i>Hipposideros ruber</i>       | 100523    | ROM  | <i>Rhinolophus malayanus</i>   | 31188    | ROM  |
|                                 | 100518    | ROM  |                                | 31184    | ROM  |
| <i>Hipposideros speoris</i>     | 104575    | ROM  | <i>Rhinolophus megaphyllus</i> | 77791    | ROM  |
|                                 | 104574    | ROM  | <i>Rhinolophus stheno</i>      | 36760    | ROM  |
| <i>Hipposideros turpis</i>      | 77920     | ROM  |                                | 36764    | ROM  |
| <i>Hypsignathus monstrosus</i>  | 56169     | ROM  | <i>Rhinolophus trifolius</i>   | 40977    | ROM  |
|                                 | 55629     | ROM  |                                | 83983    | ROM  |
| <i>Lasiurus borealis</i>        | 17911     | ROM  | <i>Rhinophylla pumilio</i>     | 105883   | ROM  |
|                                 | 20996     | ROM  |                                | 105879   | ROM  |
| <i>Lionycteris spurrelli</i>    | 44228     | ROM  | <i>Rhinopoma microphyllum</i>  | L57.3113 | MNHD |
|                                 | 45229     | ROM  |                                | 2847     | MNHD |
| <i>Lonchophylla mordax</i>      | 105798    | ROM  |                                | 2845     | MNHD |
|                                 | 91189     | ROM  | <i>Rhogeessa parvula</i>       | 91235    | ROM  |
| <i>Lonchophylla thomasi</i>     | 105610    | ROM  | <i>Rhogeessa tumida</i>        | 94223    | ROM  |
|                                 | 105750    | ROM  |                                | 101321   | ROM  |
| <i>Lophostoma schulzi</i>       | 67468     | ROM  | <i>Rhynchonycteris naso</i>    | 33000    | ROM  |
|                                 | 114115    | ROM  |                                | 98769    | ROM  |
| <i>Lophostoma silviculum</i>    | 100949    | ROM  |                                | 98016    | ROM  |
|                                 | 105913    | ROM  | <i>Rousettus aegyptiacus</i>   | 2284     | MNHD |
| <i>Macroglossus minimus</i>     | L858.3087 | MNHD | <i>Rousettus leschenaultii</i> | 77958    | ROM  |
| <i>Macrophyllum</i>             |           |      |                                |          |      |
| <i>macrophyllum</i>             | 98614     | ROM  |                                | 77957    | ROM  |
|                                 | 104389    | ROM  | <i>Saccolaimus saccolaimus</i> | 39327    | ROM  |
| <i>Megaderma spasma</i>         | L858.3085 | MNHD |                                | 39330    | ROM  |
| <i>Megaerops ecaudatus</i>      | 38734     | ROM  | <i>Saccopteryx bilineata</i>   | 94243    | ROM  |
|                                 | 38732     | ROM  |                                | 105362   | ROM  |
| <i>Megaerops niphanae</i>       | 78115     | ROM  |                                | 105672   | ROM  |
| <i>Mesophylla macconnelli</i>   | 63259     | ROM  | <i>Saccopteryx canescens</i>   | 107890   | ROM  |
| <i>Micronycteris brachyotis</i> | 98224     | ROM  |                                | 31849    | ROM  |
|                                 | 98223     | ROM  | <i>Saccopteryx leptura</i>     | 31609    | ROM  |
| <i>Micronycteris megalotis</i>  | 104440    | ROM  |                                | 59654    | ROM  |
|                                 | 106132    | ROM  | <i>Scotonycteris zenkeri</i>   | 100505   | ROM  |
|                                 | 105788    | ROM  |                                | 54905    | ROM  |
| <i>Micronycteris minuta</i>     | 91172     | ROM  | <i>Scotophilus dinganii</i>    | 71991    | ROM  |
|                                 | 84984     | ROM  |                                | 71831    | ROM  |
| <i>Micropteropus pusillus</i>   | 55908     | ROM  | <i>Scotophilus heathii</i>     | 37373    | ROM  |
|                                 | 56021     | ROM  |                                | 37349    | ROM  |
| <i>Mimon crenulatum</i>         | 105754    | ROM  | <i>Scotophilus kuhlii</i>      | 39811    | ROM  |
|                                 | 105539    | ROM  |                                | 39810    | ROM  |
| <i>Miniopterus inflatus</i>     | 69062     | ROM  | <i>Scotophilus nigrita</i>     | 76554    | ROM  |
|                                 | 68941     | ROM  |                                | 76539    | ROM  |
| <i>Miniopterus magnater</i>     | 87615     | ROM  | <i>Sphaeronycteris</i>         |          |      |
|                                 |           |      | <i>toxophyllum</i>             | 88928    | ROM  |
|                                 | 72902     | ROM  | <i>Sturnira lilium</i>         | 33540    | ROM  |
| <i>Miniopterus pusillus</i>     | 88412     | ROM  | <i>Sturnira ludovici</i>       | 106231   | ROM  |
|                                 | 88411     | ROM  |                                | 99687    | ROM  |
| <i>Miniopterus schreibersii</i> | 35675     | ROM  | <i>Sturnira tildae</i>         | 97994    | ROM  |
|                                 | 68530     | ROM  |                                | 100981   | ROM  |
| <i>Miniopterus tristis</i>      | 67603     | ROM  | <i>Syconycteris australis</i>  | 87610    | ROM  |
|                                 | 39861     | ROM  |                                | 87613    | ROM  |
| <i>Molossus ater</i>            | 674       | MNHD |                                | 87611    | ROM  |
|                                 | 587       | MNHD | <i>Tadarida aegyptiaca</i>     | 78126    | ROM  |
|                                 | 581       | MNHD |                                | 48560    | ROM  |
| <i>Molossus molossus</i>        | 920       | MNHD | <i>Taphozous hildegardeae</i>  | 74469    | ROM  |

|                              |           |      |                               |           |      |
|------------------------------|-----------|------|-------------------------------|-----------|------|
|                              | 687       | MNHD |                               | 74473     | ROM  |
|                              | 598       | MNHD | <i>Taphozous longimanus</i>   | 37971     | ROM  |
| <i>Monophyllus plethodon</i> | 74345     | ROM  |                               | 37969     | ROM  |
|                              | 74346     | ROM  | <i>Taphozous mauritanus</i>   | 36265     | ROM  |
| <i>Mops condylurus</i>       | 1507      | MNHD |                               | 36262     | ROM  |
| <i>Mormoops megalophylla</i> | 98445     | ROM  | <i>Taphozous melanopogon</i>  | 550       | MNHD |
|                              | 44925     | ROM  | <i>Thyroptera tricolor</i>    | 113925    | ROM  |
| <i>Myonycteris torquata</i>  | 36562     | ROM  |                               | 113956    | ROM  |
|                              | 36566     | ROM  | <i>Tonatia bidens</i>         | 56625     | ROM  |
| <i>Myotis adversus</i>       | 58424     | ROM  |                               | 100258    | ROM  |
| <i>Myotis albescens</i>      | 33006     | ROM  | <i>Trachops cirrhosus</i>     | 105639    | ROM  |
|                              | 31885     | ROM  |                               | 105273    | ROM  |
| <i>Myotis annectans</i>      | 86359     | ROM  | <i>Triaenops persicus</i>     | 73160     | ROM  |
|                              | 86358     | ROM  |                               | 68191     | ROM  |
| <i>Myotis bechsteinii</i>    | L935.3595 | MNHD | <i>Tylonycteris pachypus</i>  | 38169     | ROM  |
|                              | CHVE5     | MNHD |                               | 38170     | ROM  |
| <i>Myotis bocagii</i>        | 57158     | ROM  | <i>Tylonycteris robustula</i> | 38164     | ROM  |
|                              | 100492    | ROM  |                               | 38166     | ROM  |
| <i>Myotis dasycneme</i>      | 79256     | ROM  | <i>Uroderma bilobatum</i>     | 105204    | ROM  |
| <i>Myotis daubentonii</i>    | 39635     | ROM  |                               | 105930    | ROM  |
| <i>Myotis horsfieldii</i>    | 36202     | ROM  | <i>Vampyroides caraccioli</i> | 113918    | ROM  |
|                              | 38004     | ROM  | <i>Vampyrum spectrum</i>      | 45335     | ROM  |
| <i>Myotis lucifugus</i>      | 38239     | ROM  |                               | 105870    | ROM  |
|                              | 14852     | ROM  |                               | 55915     | ROM  |
|                              | 88917     | ROM  |                               | 55902     | ROM  |
| <i>Myotis muricola</i>       | 38002     | ROM  | <i>Vespertilio murinus</i>    | LXX.5854  | MNHD |
|                              | 40009     | ROM  |                               | LXX.5853  | MNHD |
|                              |           |      |                               | L937.3210 | MNHD |
|                              |           |      |                               | CHVE11    | MNHD |

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