Key to Rodent Skulls

MEDIUM-SIZED RATS

Cotton Rat (Sigmodon hispidus)
1. All teeth large compared to other rodents of similar size.
2. Tooth bed is oval shaped, not teardrop shaped.
3. Front molars emerge straight from tooth bed, not at an angle.
4. Molar groove shaped like: Σ
5. Upper rim of eye socket is rounded, does not have a pointed edge.
6. 2 holes between the rear molars on the inside roof of the mouth (palate).
7. Palate ends at end of molars.
8. Prominent ridges extending from eye sockets towards rear of skull.
9. Bottom-front of eye socket has an extension.

Marsh Rice Rat (Orysomys palustris)
1. Teeth small compared to other rodents of similar size.
2. Front molars emerge straight from tooth bed, not at an angle.
3. Large rice rat may be confused with small Rattus, key is to look at front molars
4. Ridges extending from eye sockets towards rear of skull not well developed.
5. Upper rim of eye socket is rounded, does not have a pointed edge.
6. Rear of outer eye socket slopes smoothly into skull.
LARGE-SIZED RATS

Roof Rat (*Rattus rattus*)

- Skull longer and pointer than cotton rat or rice rat.
- Skull generally longer than 25 mm.
3. Front molars (and their tooth beds) strongly angled up towards front of skull.
4. Front molars large.
5. Tooth bed teardrop shaped, pointed towards rear.
6. Upper rim of eye sockets have a slight point into the sockets.
7. Strong ridge on top of skull from eye socket to back of skull, swoops back and down when viewed from the side.
8. Bottom-front of eye socket has no extension.
9. Distance of the two plates between cranial ridges is wider (side to side) than longer (front to back)
10. Palate extends beyond rear molars.

Norway Rat (*Rattus norvegicus*)

- Skull longer and pointer than cotton rat or rice rat.
- Skull generally longer than 25 mm.
- Distance of the two plates between cranial ridges is longer (front to back) than wider (side to side).
- Strong ridge on top of skull from eye socket to back of skull, forms a straight line backwards when viewed from the side.
OTHER MEDIUM AND BIG THINGS

Round-tailed Muskrat (*Neofiber alleni*)

- Noticeably wider skull than the others.
- Large, wide, flat eye sockets.
- Upper rim of eye socket has a very prominent protrusion (nearly a right angle) into the socket.
- No cranial ridges.

Marsh Rabbit (*Sylvilagus palustris*) & Eastern Cottontail Rabbit (*S. floridanus*)

1. Entire skull very domed.
2. Eye sockets rounded and inset into skull.
- No way to distinguish between these two species by skull, but *S. palustris* more common in EAA.
THE LITTLE GUYS

House Mouse (*Mus musculus*)
- Smaller than most other rodent skulls, generally less than 25 mm.
- Same angled front teeth as Rattus.

Southern short-tailed shrew (*Blarina carolinensis*)
1. Pointy teeth.
2. Dark pigmented enamel on teeth.
3. No outer ridge around eye sockets.
4. Triangular shaped skull pointed towards the front.