

# **WHALES AND WOLVES**

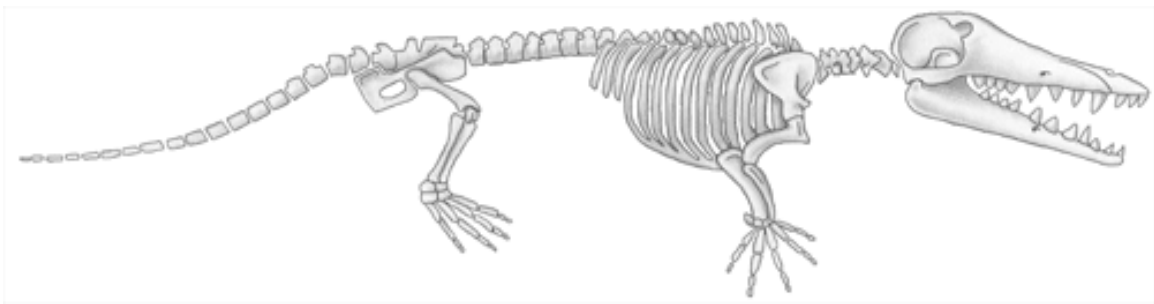
## **THE EVIDENCE**



(Marx, et. al., n.d.)

Pakicetus (48-50 million years ago)

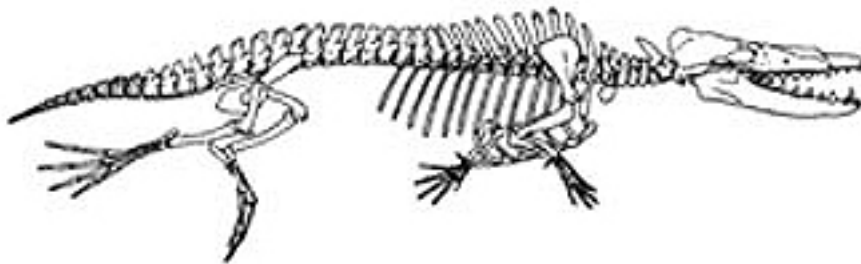
*Found in Pakistan*



(Marx, et. al., n.d.)

Ambulocetus (47-48 million years ago)

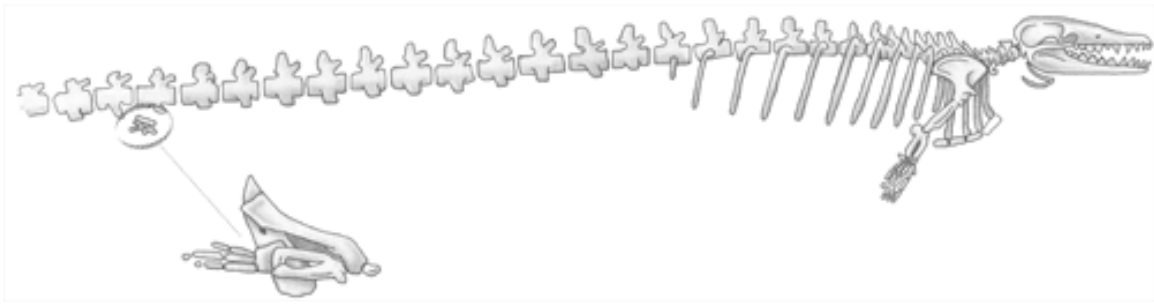
*Found in ancient estuaries or bays*



(Marx, et. al., n.d.)

Rodhocetus (39-47 million years ago)

*Found in Africa and North America*



(Marx, et. al., n.d.)

Basilosaurus (35-37 million years ago)

*Found in ocean deposits*



(Marx, et. al., n.d.)

Dorudon atrox

*(Found in 35-38 million year old ocean deposits)*



Retrieved from: <http://www.rejectionofpascalswager.net/origin.html>

Whale Fin



Retrieved from: <http://www.rejectionofpascalswager.net/origin.html>



Retrieved from: <http://www.boneclones.com/BC-044.htm>

Orca Whale Lower Jaw Bone

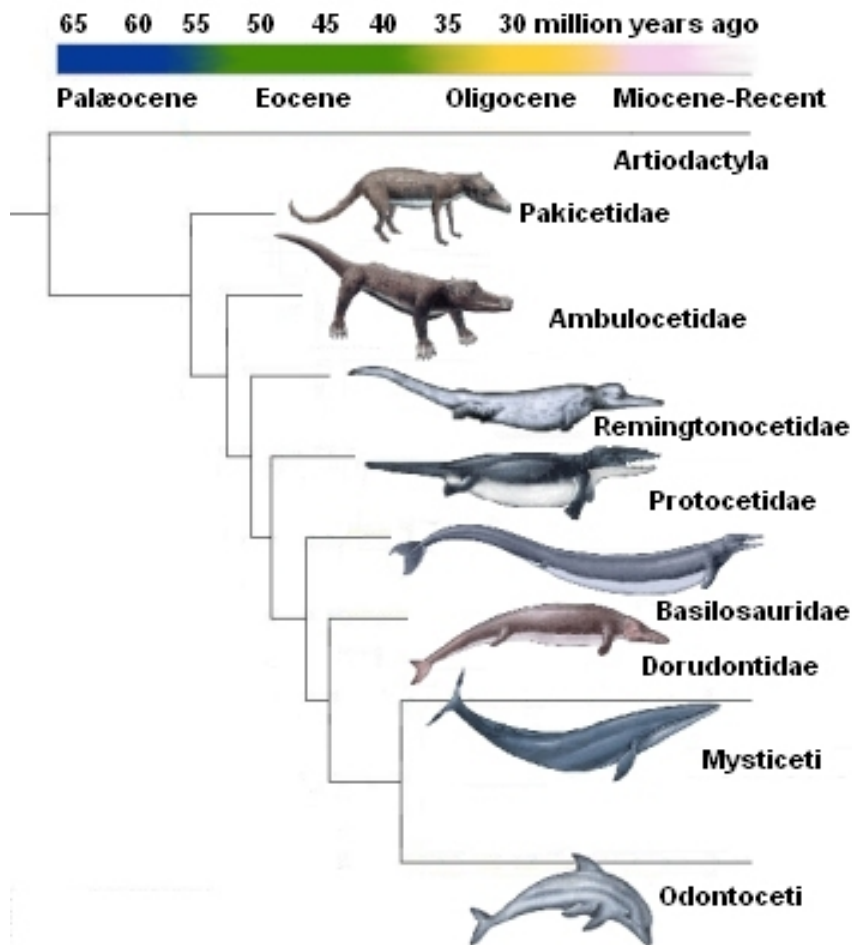


(San Diego Natural History Museum, 2010)

## Dire Wolf Jaw Bone

## What does the evidence tell us?

- ✓ Whales are mammals, so they share many similarities with the wolf, and are more closely related than a whale and shark.
- ✓ The skeleton pictures show the *fossil evidence* that has been found. They show that whales descended from a land mammal. This land mammal likely shares a common ancestor with wolves. Here is a drawing of what the land animal to whale evolution probably looked like:



(Marx, et. al., n.d.)

- ✓ Using the *geologic* information about where the skeletons were found, you can see how the descendants moved from land to estuaries (fresh and salt water mixed) to oceans.

- ✓ Using *comparative anatomy*, you can see the *homologous structures* of the whale fin and wolf leg. This suggests that they share a common ancestor.
- ✓ Using *comparative anatomy*, you can see the *homologous structures* of the whale jaw bone and the wolf jaw bone. This suggests that they share a common ancestor.