Cetacean Evolution

What is the exact ancestor of cetaceans?
DNA evidence supports

- DNA evidence supports
- DNA evidence supports
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- DNA evidence supports

But anklebones (fossil evidence) don't support this idea. But whales don't have anklebones, or do they?

52 mya. Pakicetus (Pakistan):
- Skull of an "archeocyte" (now extinct)
- Cetacean-like but jaw different
  1) 
  2) 
- Fed on _______ in ________ water.
- Bred and gave birth ________
- Wolf size to bear size

49 mya. Ambulocetus natans (Pakistan):
- Means: ___________________
- Strong legs with feet like a pinniped (land and sea)
- ____________ fluke yet
- ____________ Backbone, Swan by
- 5) Bred and gave birth on land.

40 mya. Basilosaurus 50' long (Egypt):
- Many skeletons discovered
- Simple hind leg with three tiny toes used as "__________" to
- carnivorous teeth
- hair
- breathing __________________

Basilosaurus:

Toothed whales- odontocetes
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Baleen whales- mysticetes
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Convergent evolution with fish:

Convergent evolution:

- Flukes
- Killer whale and dolphin dorsal fin
- Hair
- Breathing

Porpoise Embryo:
Embryo has: 4 limb buds
- Pelvis
- Tail
- Nostrils toward front of head

During Development:
1) Forelimb buds become ________________
2) Rear limb buds ________________
3) Nostrils shift from snout to top of head = ________________
4) Flipper- bone structure similar to terrestrial ancestors. Fingers are attached to arm bones and wrist bones.
6) Even baleen whales have embryonic tooth-buds.

So... Evidence from:
1)
2)
3)
4)