

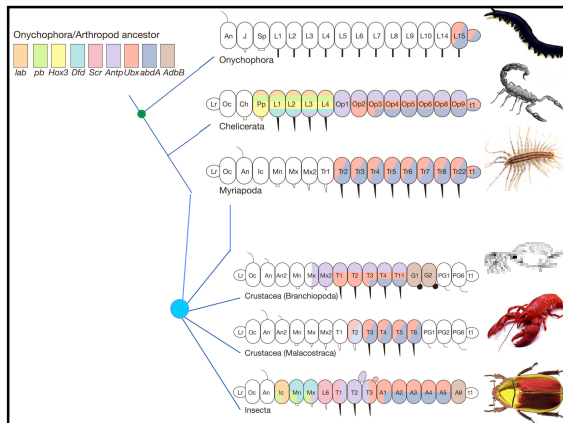
EVO-DEVO TALES

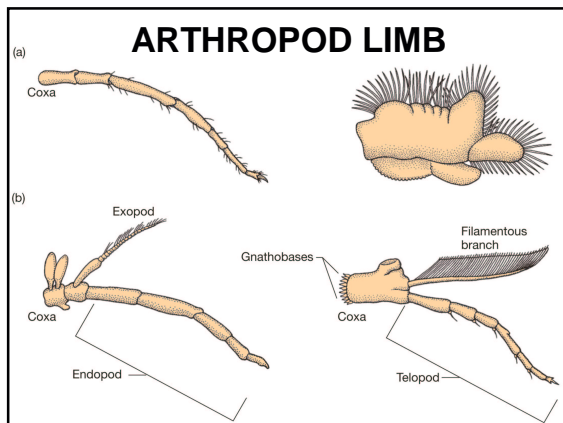
transformation
thoracic walking to maxilliped feeding

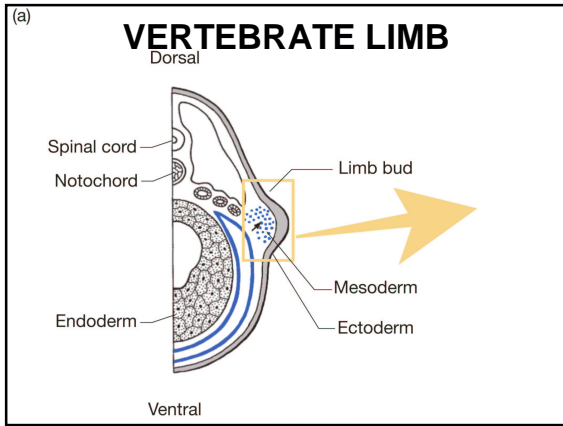
transition
fins to limbs

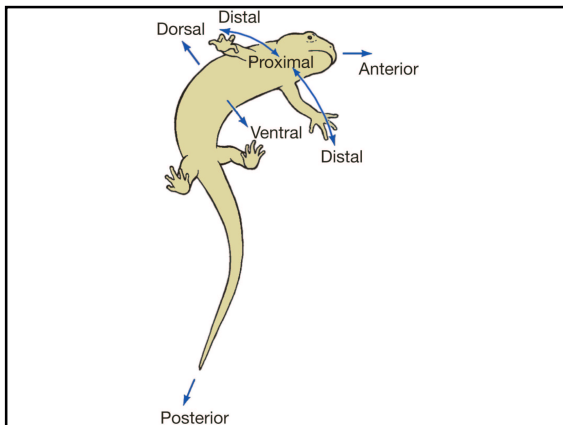
derivation
scales to feathers

novelty
mesoderm, neural crest (?)









LIMB HOMOLOGY

	A-P	D-V	P-D
chick	<i>shh</i>	<i>wnt7a</i>	<i>fringe</i>
wing bud	<i>BMP2</i>	<i>Lmx1</i>	<i>Dll</i>
fruit fly	<i>hh</i>	<i>Wingless</i>	<i>fringe</i>
imaginal disc	<i>dpp</i>	<i>apterous</i>	<i>Dll</i>

DII

expressed at distal tip in developing appendages

arthropods	<i>Drosophila</i>
onychophorans	<i>Peripatopsis</i>
annelids	<i>Chaetopterus</i>
vertebrates	<i>Gallus</i>

regulates proximal-distal outgrowths

a morphogenetic 'tool'

REVERSALS

may be inferred to result from
gene expression, repression
(e.g., *Hox* genes)
inductive tissue interaction failure
(e.g., epithelial-mesenchymal)

