

## Crab nebula of life

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Researchers Chu, et.al., have constructed the most complete and extensive crab sequence dataset to date. Their recalibrated crab gene tree using DNA and mitochondrial sequences from 140 species and 58 crab families provides some important new insights into the timing and diversity of crab evolution.

Crabs—those sometimes pesky, hard-shelled beachcombers—are a highly diverse animal, with some 7,000 species found in oceans, lakes and on land, varying in size from the diminutive pea crab (millimeters) to the giant 4 meter-wide Japanese spider crab.

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The research team's estimates confirm the fossil record of most living crab families and superfamilies first arising during the late Cretaceous and early Tertiary (60-100 mya), at the same time when dinosaurs ruled the Earth. They also demonstrated that freshwater crabs were derived early in the evolution of true crabs and are shown to have at least two independent origins. Molecular methods estimate that freshwater crabs separated from their closest marine relatives after the break-up of Pangaea (~200 mya).

The study refines many crab evolutionary issues, and provides a new, comprehensive resource for scientists to further investigate the



molecular underpinnings responsible for body forms shapes and functions among the various <u>species</u>.

## Provided by Oxford University Press

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