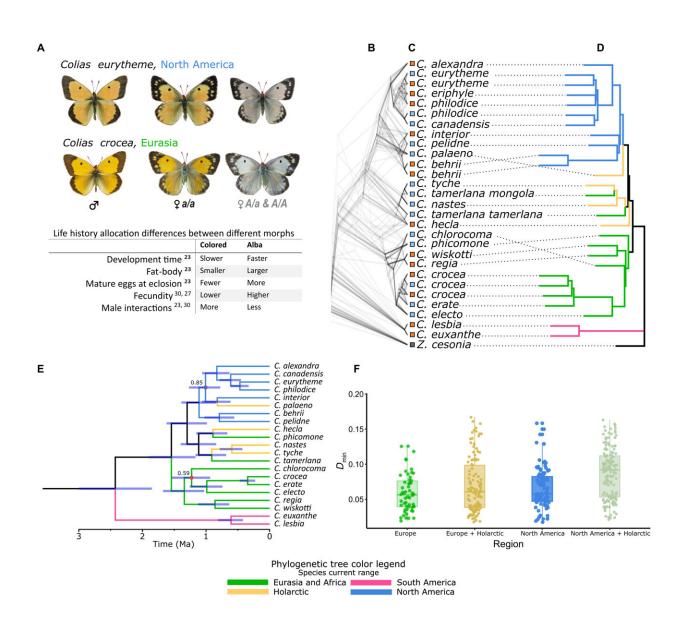


Biologists report on alternative life-history strategy in Colias butterflies

March 22 2023



The Alba phenotypes of representative Colias species, the evolutionary relationships among major Colias lineages in light of their Alba phenotypes and



regional distribution, and evidence for historical introgression. (A) Representative Colias species from both sides of the Atlantic, illustrating the female-limited Alba phenotype along with a table of life history differences between the female morphs. (B) A densitree plot of chromosome-level trees (one tree per chromosome), generated using gene trees based on a single exon per single-copy gene (on average 129 genes per chromosome; n = 4011 BUSCO genes). (C) Each specimen's wing color is indicated with colored boxes on branch tips (blue = Alba, orange = colored, gray = NA). (D) ASTRAL species tree, generated using the longest exon per BUSCO gene, with branches colorcoded by their sample's regional distribution (blue = North America, orange = Holarctic, green = Eurasia and Africa, purple = South America). (E) Time-calibrated SNAPP tree generated using a subset of taxa and 1314 SNPs, with millions of years on the x axis. Blue bars at nodes represent 95% highest posterior distribution of node ages, with nodes having posterior support of < 0.9indicated with a dot and their value. (F) Distribution of minimal D-statistic of all species trios that showed significant levels of introgression (Bonferroni-Holm–corrected P

Citation: Biologists report on alternative life-history strategy in Colias butterflies (2023, March 22) retrieved 29 April 2024 from <u>https://phys.org/news/2023-03-biologists-alternative-life-history-strategy-colias.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.