



Hrvatsko biološko društvo
SOCIETAS BIOLOGORUM CROATICA
Croatian Biological Society

13. HRVATSKI BIOLOŠKI KONGRES
s međunarodnim sudjelovanjem

13th CROATIAN BIOLOGICAL CONGRESS
with International Participation

Poreč, 19 - 23. 09. 2018.



ZBORNİK SAŽETAKA

BOOK OF ABSTRACTS



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**BOOK OF ABSTRACTS
OF THE 13th CROATIAN BIOLOGICAL CONGRESS**

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EFFECTS OF TOMATO AND APPLE DIETS ON MORPHOLOGICAL AND BEHAVIORAL TRAITS IN *Drosophila melanogaster*

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The development and growth of *Drosophila* larvae are greatly influenced by nutritional variations. Differences in developmental processes in various nutritive environments can be further detected in adults, at morphological, physiological and behavioural levels, including sexual interactions. In this study, we questioned if there is sexual selection favouring larger *D. melanogaster* males and particular wing shape in relation to nutrition. Wing characteristics were used, since they are involved in male courtship, during phases termed as orientation and “singing”. For experimental purpose, flies cultured on tomato and apple diets for years were used. We have previously observed that tomato diet contains a significantly higher amount of proteins and lower C/N ratio than the apple diet that was reflected on different fitness traits. The effects of two diets on morphological and behavioural traits were scored in female choice tests, in which males from both “nutritional strains” were offered to females of “tomato strain” and to females of “apple strain”. Statistics obtained in MorphoJ program determined that “tomato” males possessed larger and narrower wings than the “apple” males. Males developed on tomato diet were also more attractive to females. Our results emphasized that the strength and shape of sexual selection acting on wing traits vary with the nutritive environment influencing male mating success.

Keywords: *Drosophila melanogaster*, diet, wings, mating success

BIOLOGIJA MORA MARINE BIOLOGY

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UVID U BIORAZNOLIKOST REBRAŠA SJEVERNOG JADRANA METODOM METABARKODIRANJA

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Rebraši (Ctenophora) su skupina morskih želatinoznih organizama koji su sastavni dio zooplanktona. Nedavno su se istraživanja usmjerila na *Mnemiopsis leidyi*, invazivnu vrstu rebraša. Od 2016. godine je tijekom ljetnih mjeseci zabilježena prekomjerna brojnost *M. leidyi*