



Cover: A hatching California two-spot octopus (*Octopus bimaculoides*). Ramirez and Oakley (pp. 1513–1520) show that light causes a dramatic expansion of pigmented chromatophores in octopus skin, even without input from the eyes or brain, which typically control chromatophore activity. This behavior (dubbed light-activated chromatophore expansion, or LACE) indicates that octopus skin is intrinsically light sensitive. Gene expression data also suggest that the same genes used in eyes operate in octopus skin and underlie LACE behavior. This study illustrates how ‘old’ genes expressed in a new place may contribute to the evolution of novel behaviors. Photo credit: Markos Alexandrou.

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- 1487** Mosquitocidal properties of IgG targeting the glutamate-gated chloride channel in three mosquito disease vectors (Diptera: Culicidae)
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- 1496** Intraspecific metabolic scaling exponent depends on red blood cell size in fishes
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- 1504** The potential effects of climate-change-associated temperature increases on the metabolic rate of a small Afrotropical bird
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- 1513** Eye-independent, light-activated chromatophore expansion (LACE) and expression of phototransduction genes in the skin of *Octopus bimaculoides*
Ramirez, M. D. and Oakley, T. H.

- 1521** Transcranial light affects plasma monoamine levels and expression of brain encephalopsin in the mouse
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- 1527** Burrowing by small polychaetes – mechanics, behavior and muscle structure of *Capitella* sp.
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- 1548** Dynamic digestive physiology of a female reproductive organ in a polyandrous butterfly
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- 1556** Spectral sensitivity of cone photoreceptors and opsin expression in two colour-divergent lineages of the lizard *Ctenophorus decresii*
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- 1564** Visual acuity trade-offs and microhabitat-driven adaptation of searching behaviour in psyllids (Hemiptera: Psylloidea: Aphalaridae)
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- 1572** Diversity and evolution of sound production in the social behavior of *Chaetodon* butterflyfishes
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- 1585** Sound pressure enhances the hearing sensitivity of *Chaetodon* butterflyfishes on noisy coral reefs
Tricas, T. C. and Boyle, K. S.

- 1596** Visual phototransduction components in cephalopod chromatophores suggest dermal photoreception
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- 1603** The lateral line is necessary for blind cavefish rheotaxis in non-uniform flow
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- 1613** Adhesive pad differentiation in *Drosophila melanogaster* depends on the Polycomb group gene *Su(z)2*
Hüsken, M., Hufnagel, K., Mende, K., Appel, E., Meyer, H., Peisker, H., Tögel, M., Wang, S., Wolff, J., Gorb, S. N. and Paululat, A.