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Cover: An arboreal Southeast Asian pitviper, *Viridovipera gumprechtii*. The shadows of the flash highlight the directional orientation of its large, forward-facing facial pits. Bakken et al. (pp. 2621–2629) defined the comparative image-forming characteristics of four species using detailed models of their facial pit anatomy and optical and heat transfer physics. These results informed a companion neuroanatomical and neurophysiological study by Kohl et al. (pp. 2630–2636). In combination, these papers define new approaches to the study of the neurosensory and ecological functions of this eye-like organ that detects thermal radiation. Photo © Guido Westhoff.

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