

# Beauty of the Beast

PRAYING MANTISES



**A  
PRAYER  
FOR  
A PREY**

A dazzling visual tribute to the sexy, sleek and sinisters "tigers of the grass" - unsurpassed masters of camouflage and elegance

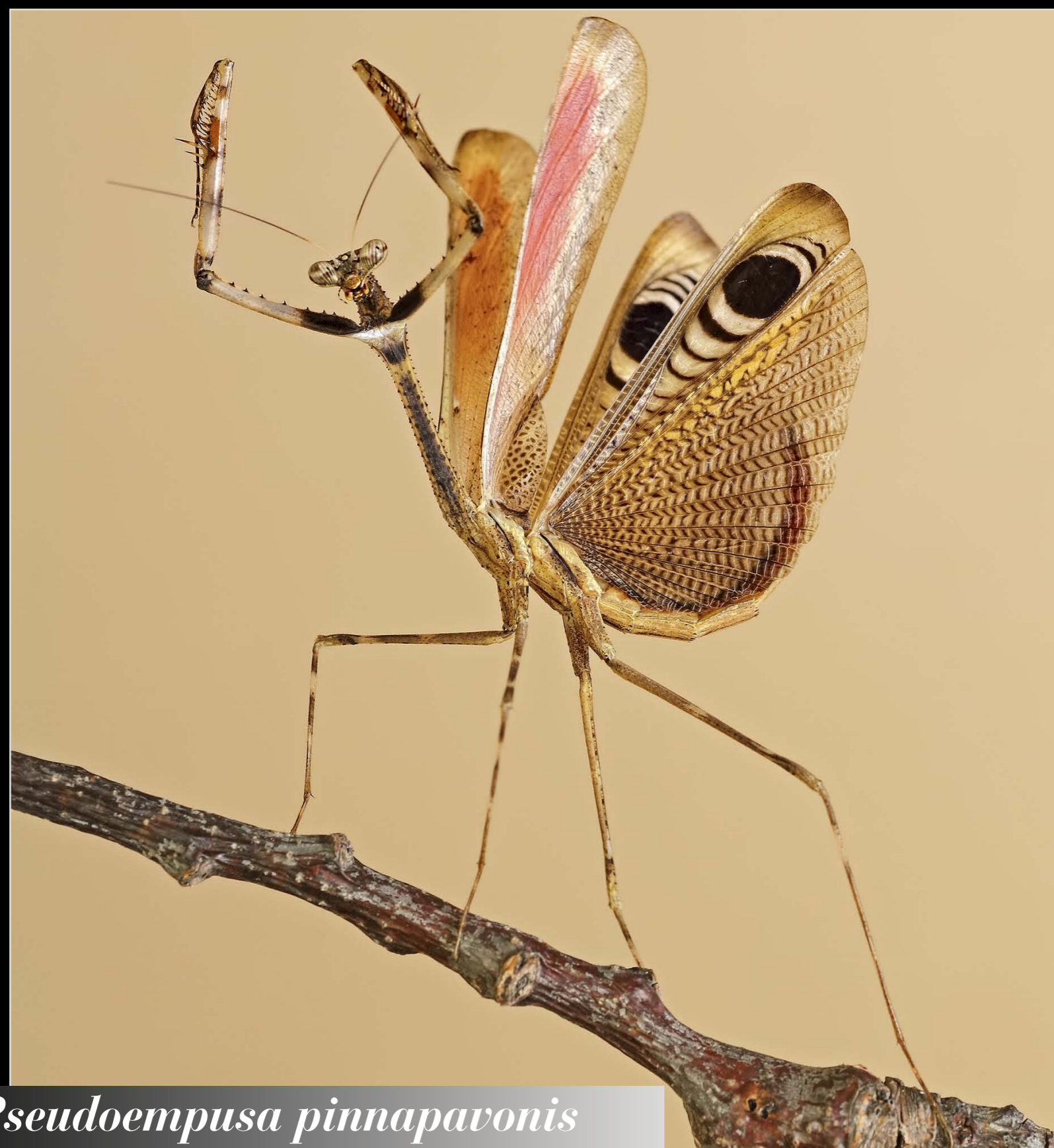


*Mantis religiosa*

Deimatic behavior (threat display) by the common European Mantis. In the opening spread, a tiny nymph of *Idolomantis diabolica*.  
Photos by Stefano Ballerano

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*Pseudoempusa pinnapavonis*

Deimatic behavior by the Peacock Mantis, distributed in Burma and Thailand.  
Photo by Stefano Ballerano

I have always had - since I was a small kid - a fetish for Praying mantids (or, rather more correctly, *mantises* - but mantids sounds better, so we'll stick to it even if, strictly speaking, it should only apply to the members of the family *Mantidae*). I've always found them strangely sexy (in their own weird way, since they are strictly related - of all things - to cockroaches), with their hesitating, creepy gait, their alien stare which seems to never abandon you (due - no doubt - to the pseudopupil, that black spot which floats on their big, triangular eyes and always follows one's movements), their thin, top-model legs and flat thorax - truly ideal candidates for a catwalk of the insect world. Sexy, yes - but uniquely sinister too, with those ferociously spiked raptorial forelegs, perennially kept in that sanctimonious pose that has given mantises their common name. Like some unctuous old bishop from an extraterrestrial Middle Ages, they greedily contemplate their potential, unwary prey, slightly rocking to and fro like a leaf in the breeze, savouring in their own bloodless way the forthcoming banquet. And then they strike, lightning fast, extending like a switchblade their forelegs to grab the squirming prey and feast on it - alive and silently screaming - with a ferocious and yet detached appetite, a mechanical, terrifying daintiness. I admit it, I tend to

anthropomorphize Praying mantids - but only the coldest researcher wouldn't, and I am no professional entomologist. There's another aspect of these relentless, perennially hungry predators which never fails to amaze me - their stunning *penchant* for mimicry and camouflage. Exquisitely adapted to their plant and grassland environment, most species have evolved a stupefying array of liveries, shapes and patterns to literally disappear among the vegetation - looking like green, dry or rotting leaves, dry sticks, leaves of grass, even orchids in bloom, they're all over the place, and yet very few ever notice them. Some of the best examples of mimicry and camouflage in the animal world are shown by mantises, in fact. And then, to top it all, there's of course the dazzling deimatic behavior - a threat display, in common parlance - shown by several species when facing a real or perceived threat: a flurry of ocellated wings fanned wide in glorious technicolor, a samurai stance with bellicosely raised forelegs shining like razor-sharp *katanas*, a tilted rhythmic dance on those rocking, thin top-model legs which never fails to draw a gasp from the stunned onlooker. So, you see, I'm truly in love with these beautiful, elegant killers. They're sexy, they're sinister - and they're seductive. Take a look at the following pages - and be surprised.



*Mantis religiosa*

The ballet-like gracefulness of the threat display by the European Mantis.  
Photo by Paul Harcourt Davies



*Acanthops royi*

A mesmerizing dry-leaf mimic species found in the Amazon of Ecuador.  
Photo by Andrea & Antonella Ferrari



*Hymenopus coronatus*

An exquisite *Phalaenopsis* sp. flower mimic, the Orchid Mantis is found in Malaysia.  
Photo by Andrea & Antonella Ferrari



*Toxodera hauseri*

An entomologist's Holy Grail, this twig-mimic Feather Mantis is found in Borneo.  
Photo by Chan Kar Wai



*Gongylus gongylodes*

The large and extravagant Wandering Violin Mantis from the Western Ghats of India.  
Photo by Andrea & Antonella Ferrari



*Idolomantis diabolica*

The Devil's Flower Mantis from Ethiopia, Kenya, Malawi, Somalia, Tanzania and Uganda.  
Photo by Stefano Ballerano



*Schizocephala bicornis*

This extraordinary grass stalk-mimic is found in the Himalayan foothills from Nepal to Assam in India.  
Photo by Shantanu Kuveskar





*Idolomantis diabolica*

A portrait of the Devil's Flower Mantis from the forests of Eastern Africa.  
Photo by Stefano Ballerano



*Choeradodis rhombicollis*

The green leaf-mimic Shield Mantis is found in Central and northern South America.  
Photo by Andrea & Antonella Ferrari



*Danuria sp.*

This dry-grass mimic haunts the bush of the South African lowveld.  
Photo by Andrea & Antonella Ferrari



*Deroplatys desiccata*

A dry-leaf mimic species found in SE Asia from Thailand to Malaysia and Borneo.  
 Photo by Andrea & Antonella Ferrari



*Idolomantis diabolica*

Portrait of a newly hatched African Devil's Flower Mantis.  
 Photo by Stefano Ballerano



*Idolomantis diabolica*

The stunning deimatic behavior - or threat display - shown by an adult Devil's Flower Mantis.  
Photo by Stefano Ballerano



*Empusa pennata*

A dry inflorescence-mimic species found in the Mediterranean "macchia" or *maquis*.  
Photo by Stefano Ballerano



*Mantis religiosa*

A female of the species showing cannibalistic behavior after mating.  
Photo by Stefano Ballerano



*Undescribed Bark mantis sp.*

An apparently still undescribed species of Bark Mantis found in Danum Valley, Borneo.  
Photo by Andrea & Antonella Ferrari



*Phyllocrania paradoxa*

A stunningly effective dry leaf-mimic species from the South African bush.  
Photo by Andrew Odogwu



*Macromantis sp.*

Deimatic behavior or threat display by a species from the Amazon of Ecuador.  
Photo by Andrea & Antonella Ferrari



*Antemna rapax*

A large and highly effective green leaf-mimic species from Costa Rica.  
Photo by Andrea & Antonella Ferrari





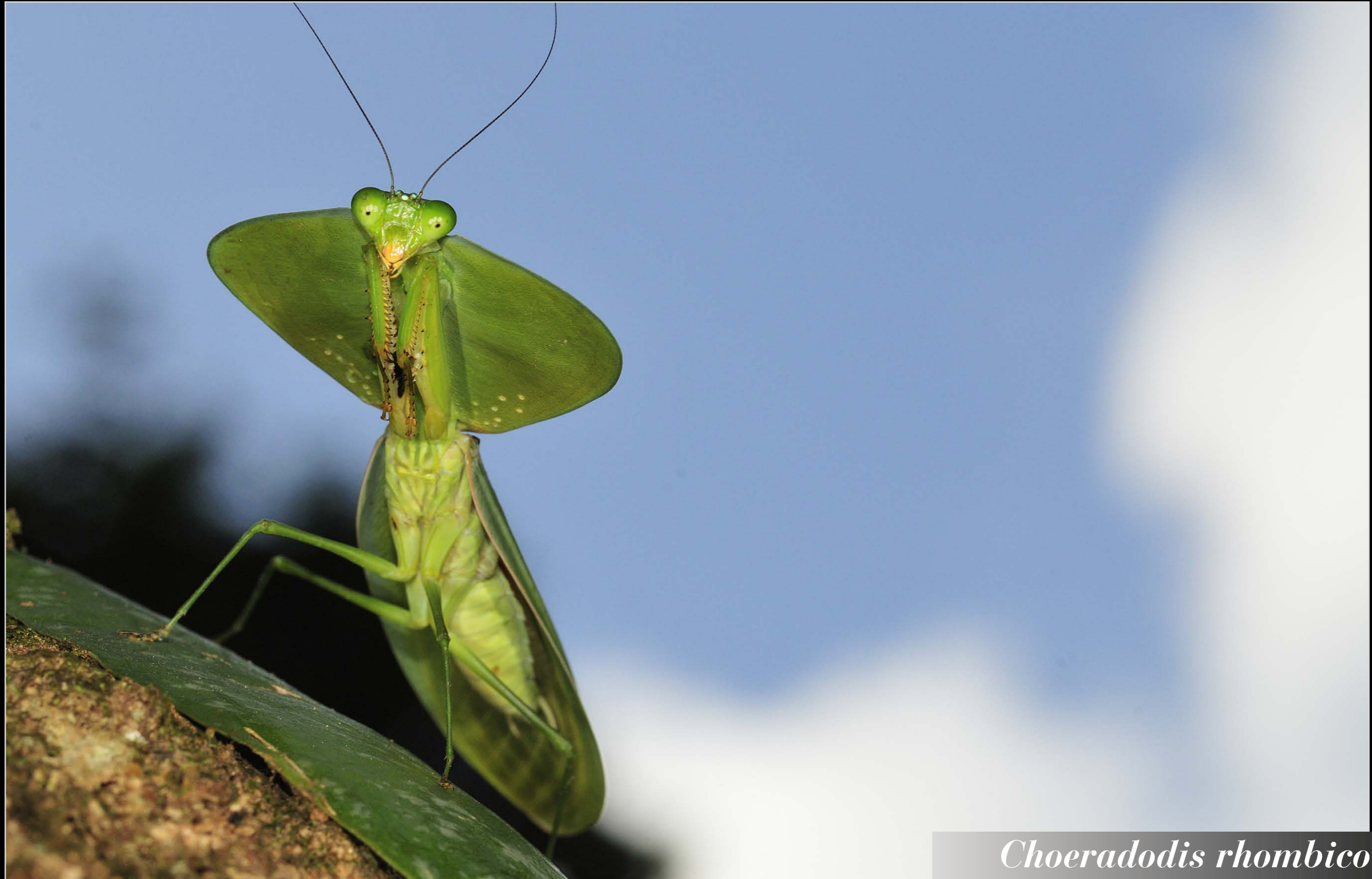
*Gongylus gongylodes*

The disturbing stare of the Wandering Violin Mantis from India's Western Ghats.  
Photo by Andrea & Antonella Ferrari



*Hierodula sp.*

A large species from India's Western Ghats, whose eyes turn red at night.  
Photo by Andrea & Antonella Ferrari.



*Choeradodis rhombicollis*

Central and northern South American Shield Mantids effectively mimic green leaves when seen from above.  
Photo by Andrea & Antonella Ferrari



*Idolomantis diabolica*

Threat display by the Devil's Flower Mantis from Eastern Africa.  
Photo by Stefano Ballerano



*Gongylus gongylodes*

A subadult Wandering Violin Mantis from the Western Ghats of India.  
Photo by Andrea & Antonella Ferrari



*Creobroter gemmatus*

The Jewel Flower Mantis is a bud-mimic species found in India. This individual has lost its left raptorial claw.  
Photo by Andrea & Antonella Ferrari



*Idolomantis diabolica*

Subadult Devil's Flower Mantis from Eastern Africa.  
Photo by Stefano Ballerano



*Mantis religiosa*

Adult - and possibly pregnant - female European Mantis.  
Photo by Stefano Ballerano



*Idolomantis diabolica*

Portrait of an adult Devil's Flower Mantis from Eastern Africa.  
Photo by Stefano Ballerano



*Gongylus gongylodes*

Portrait of an adult Wandering Violin Mantis from India's Western Ghats.  
Photo by Andrea & Antonella Ferrari



*Phyllocrania paradoxa*

This small South African species is an extraordinarily effective dry leaf-mimic.  
Photo by Andrew Odogwu

A special contribution  
by Piotr Naskrecki, Harvard University

TEXT AND PHOTOS  
BY PIOTR NASKRECKI



*Pseudacanthops spinulosa*

A female Moss mantis from Guyana is indistinguishable from the mossy branch on which it is waiting for prey.  
Photo by Piotr Naskrecki

At first I thought that the little speck of bark that moved was just that, a piece of wood trembling in the breeze on an old *Acacia* tree in the Mozambican savanna. But years of experience compelled me to check again, and on the second glance I realized that I was looking at a very interesting African insect, the Short-necked bark mantis (*Amorphoscelis austrogermanica*). This small, inconspicuous creature, lacking flashy colors or extravagant shapes typical of other praying mantids, nonetheless offers a rare insight into the origin of this remarkable order of insects. Praying mantids are probably some of the most easily recognizable of insects: nearly all species possess a long "neck" (pronotum), a highly movable head with large eyes and, most importantly, a pair of massive, raptorial front legs. These are held in a fashion reminiscent of a person engrossed in a prayer, hence their common name. All known species of praying mantids, and there are over 2,500 of them, are strictly predaceous, making them one of only two orders of insects consisting exclusively of carnivores (the other one is the recently discovered Mantophasmatodea). In a handful of species young nymphs supplement their diet with pollen, but all eventually end up being hungry sit-and-wait hunters of insects and other small animals. Mantids are generally liked, or at least tolerated, even by people who are not fond of other insects. This is probably thanks to their almost human-like head, which can turn in almost any direction, and the big eyes that seem to meet a person's gaze. It may thus come

as a surprise to learn that praying mantids' closest relatives are lowly cockroaches, animals that are universally reviled as the mantids are loved. But a close look at the Short-necked bark mantis that I spotted on a tree in Mozambique reveals the connection: both groups have a triangular head, a shield-like pronotum, and strongly elongated coxae ("hips") on all legs. The main difference lies in the development of the front legs, which in most mantids are huge and heavily spined – powerful weapons, perfectly adapted for swift capture of an unsuspecting grasshopper, a butterfly, and even an occasional hummingbird. The Short-necked bark mantis, however, has the front legs not much different from those of a typical cockroach, and can only be told apart from one by the way it holds its head – pointing forward, rather than hidden under the pronotum. Perhaps if we start thinking of cockroaches simply as vegetarian praying mantids the attitude towards these generally harmless and beneficial insects will change? I have been fascinated by praying mantids all my life, and therefore was thrilled to discover that in my garden in Massachusetts two species of these remarkable insects had become established. They are not only fascinating organisms to watch and admire, as their slowly stalk their prey and strike with a lightning speed, but their often otherworldly yet strangely humanoid features offer endless inspiration to nature photographers everywhere these beautiful animals are found. ●





*Phyllocrania paradoxa*

A nymph of the leaf mantis *Phyllocrania paradoxa* resembles a piece of dry, shriveled vegetation.  
Photo by Piotr Naskrecki



*Idolomorpha dentifrons*

Males of this South African have comb-like antennae, used to detect female pheromones.  
Photo by Piotr Naskrecki



*Otomomantis scutigera*

A pair of Mozambican mantids *O. scutigera*.  
Photo by Piotr Naskrecki



*Sibylla pretiosa*

A portrait of a southern African tree mantis, *S. pretiosa*.  
Photo by Piotr Naskrecki



*Acanthops sp.*

A male Dead leaf mantis from Suriname.  
Photo by Piotr Naskrecki



*Epitenodera capitata*

A giant African mantis *E. capitata*, devouring a grasshopper.  
Photo by Piotr Naskrecki



*Miomantis sp.*

A female West African mantis against the setting sun.  
Photo by Piotr Naskrecki