

# International Journal of Tropical Insect Science

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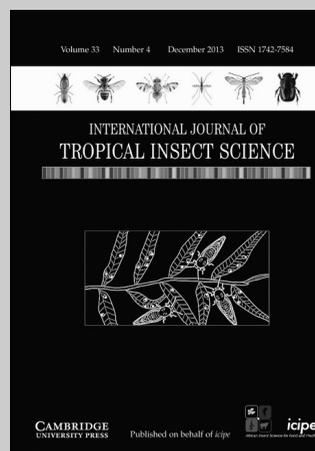
*International Journal of Tropical Insect Science* is the only journal devoted exclusively to the latest research in tropical and sub-tropical insect science. Each issue brings you original, peer-reviewed research findings on tropical insects and related arthropods, with special emphasis on their environmentally benign and sustainable management. The journal's scope includes arthropod ecology and biodiversity, ethno-entomology, arthropod taxonomy, integrated pest and vector management, and environmental issues. The journal publishes research papers, short communications and scientific notes. The journal also includes reports of meetings and obituaries of prominent scientists, book reviews, and review and mini-review articles that are normally submitted at the invitation of the Editors.

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# Oryx

The International Journal of Conservation

Published for Fauna & Flora International

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Martin Fisher, Fauna & Flora International, UK

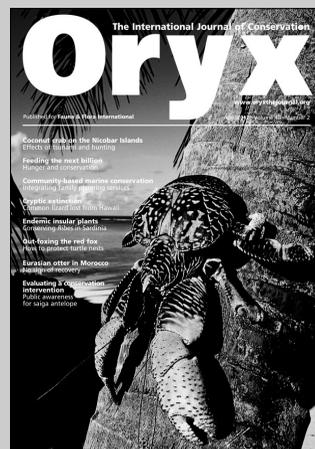
*Oryx* -- *The International Journal of Conservation* is a quarterly peer-reviewed journal of biodiversity conservation, conservation policy and sustainable use, and the interaction of these subjects with social, economic and political issues. The journal has a particular interest in material that has the potential to improve conservation management and practice, supports the publishing and communication aspirations of conservation researchers and practitioners worldwide and helps build capacity for conservation. Besides articles and short communications, *Oryx* regularly publishes reviews, forum sections and letters, and every issue includes comprehensive reporting of international conservation news.

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# Entomological Society of Canada / Société d'entomologie du Canada

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The Entomological Society of Canada was founded in 1863 to study, advance, and promote entomology. It does this through publications, meetings, scholarships and awards, advocacy, and other activities. Membership is open to all individuals interested in entomology worldwide and is renewable annually. Regular members receive the scientific journal of the Society, *The Canadian Entomologist*, published continuously since 1868, and the newsletter of the Society, the *Bulletin*. Student members receive the *Bulletin* and can elect to receive *The Canadian Entomologist* for a nominal surcharge. All members receive a discount for annual meeting registration fees, have access to members-only privileges at the Society Web site, and receive other benefits. Details on regular and student membership fees and application forms are also available at the Web site. Application forms should be transmitted to the Society Office.

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Fondée en 1863, la Société d'entomologie du Canada a pour but d'étudier, de faire progresser et de promouvoir l'entomologie. Elle accomplit ceci par des publications, des réunions, des bourses et prix, par plaidoyer ou autres activités. L'adhésion est ouverte à toute personne au monde intéressée à l'entomologie, et elle est renouvelable annuellement. Les membres réguliers reçoivent le journal scientifique de la Société, *The Canadian Entomologist*, qui a été publié sans interruption depuis 1868, et le *Bulletin* de la Société. Les membres étudiants reçoivent le *Bulletin* de la Société et, moyennant un coût nominal, *The Canadian Entomologist*. Tous les membres ont des rabais pour l'inscription à la réunion annuelle, un accès privilégié à la section des membres du site Internet, ainsi que d'autres avantages. Pour les formulaires d'application et des informations concernant l'adhésion régulière ou étudiante, consultez le site Web. Les formulaires d'adhésion doivent être acheminés au siège de la Société.

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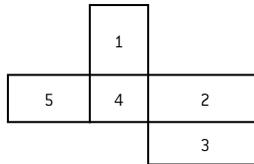
## Images

*On the spine:* Graduate students collect at a light trap late at night. The bright lights are powered by the car's battery [Vernon, British Columbia, Canada]

Des étudiants gradués capturent des insectes dans un piège lumineux tard dans la nuit. Les lumières vives sont alimentées par une batterie de voiture [Vernon, Colombie-Britannique, Canada] [Photo: Ward Strong]

*Beneath the title:* *Lucilia* (Diptera: Calliphoridae) sitting on a bright chrysanthemum, this blow fly seems to be making up in aesthetics what it lacks in personal hygiene [Oyama, British Columbia, Canada]

*Lucilia* (Diptera : Calliphoridae) posée sur un chrysanthème coloré, cette mouche semble compenser ses lacunes en hygiène personnelle par l'esthétique [Oyama, Colombie-Britannique, Canada] [Photo: Ward Strong]

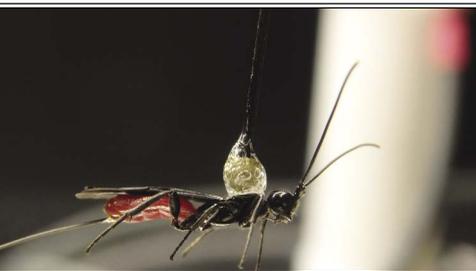


## Front cover/Plate supérieur:

- 1 Predator versus parasitoid: *Rhinocoris annulatus* (Hemiptera: Reduviidae) feeding on an Ichneumonidae (Hymenoptera) [Delémont, Switzerland]  
Prédateur contre parasitoïde : *Rhinocoris annulatus* (Hemiptera : Reduviidae) se nourrissant d'un ichneumon (Hymenoptera) [Delémont, Suisse] [Photo: Tim Haje]
- 2 Cecropia moth, *Hyalophora cecropia* (Lepidoptera: Saturniidae), just after moulting to third instar. This laboratory-reared caterpillar is from the F2 generation of a gravid female collected in 2014 [Black Donald Lake near Calabogie, Ontario, Canada]  
Un saturnie cécropia, *Hyalophora cecropia* (Lepidoptera : Saturniidae), après la mue vers le troisième stade. Cette chenille élevée en laboratoire est de la génération F2 d'une femelle féconde capturée en 2014 [lac Black Donald près de Calabogie, Ontario, Canada] [Photo: Andrea Brauner]
- 3 *Megachile* (Hymenoptera: Megachilidae) leafcutter bees are important pollinators widely used in alfalfa growing areas. This specimen of *Megachile frigida* was excavating its nest in an old wood retaining wall in a garden [Prince George, British Columbia, Canada]  
*Megachile* (Hymenoptera : Megachilidae). Les abeilles découpeuses sont d'importants pollinisateurs largement utilisés dans les aires de cultures de Luzerne. Leur biologie reproductive est plutôt intéressante. Ce spécimen de *Megachile frigida* creusait son nid dans un vieux mur de soutènement en bois dans un jardin [Prince George, Colombie-Britannique, Canada] [Photo: Staffan Lindgren]
- 4 The longhorned beetle *Bellamira scalaris* (Coleoptera: Cerambycidae) preparing for takeoff [Denver, Nova Scotia, Canada]  
Le longicorne *Bellamira scalaris* (Coleoptera : Cerambycidae) se préparant à s'envoler [Denver, Nouvelle-Écosse, Canada] [Photo: Colin MacKay]
- 5 A spruce budworm (*Choristoneura fumiferana*; Lepidoptera: Tortricidae) pupa on a balsam fir branch. The spruce budworm is a major native defoliator in eastern Canada [Near Baie-Comeau, Québec, Canada]  
Une chrysalide de tordeuse des bourgeons de l'épinette (*Choristoneura fumiferana*, Lepidoptera : Tortricidae) sur une branche de sapin baumier. La tordeuse des bourgeons de l'épinette est un défoliateur indigène dans l'est du Canada [Près de Baie-comeau, Québec, Canada] [Photo: Véronique Martel]

## Back cover/Plate inférieur:

Female *Atanycolus* (Hymenoptera: Braconidae), a North American parasitoid of emerald ash borer (Coleoptera: Buprestidae), tethered to a flight mill in a laboratory at the Canadian Forest Service, Great Lakes Forestry Centre to study factors affecting flight [Sault Ste. Marie, Ontario, Canada]  
Une femelle *Atanycolus* (Hymenoptera : Braconidae), un parasitoïde nord-américain de l'agrile du frêne (Coleoptera : Buprestidae), attachée à un moulin de vol dans un laboratoire du Service canadien des forêts, au Centre de foresterie des Grands-Lacs afin d'étudier les facteurs qui affectent le vol [Sault-Ste-Marie, Ontario, Canada] [Photo: Justin Gaudon]



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