

# Rhabdoviruses

Molecular Taxonomy, Evolution, Genomics, Ecology,  
Host–Vector Interactions, Cytopathology and Control

Edited by

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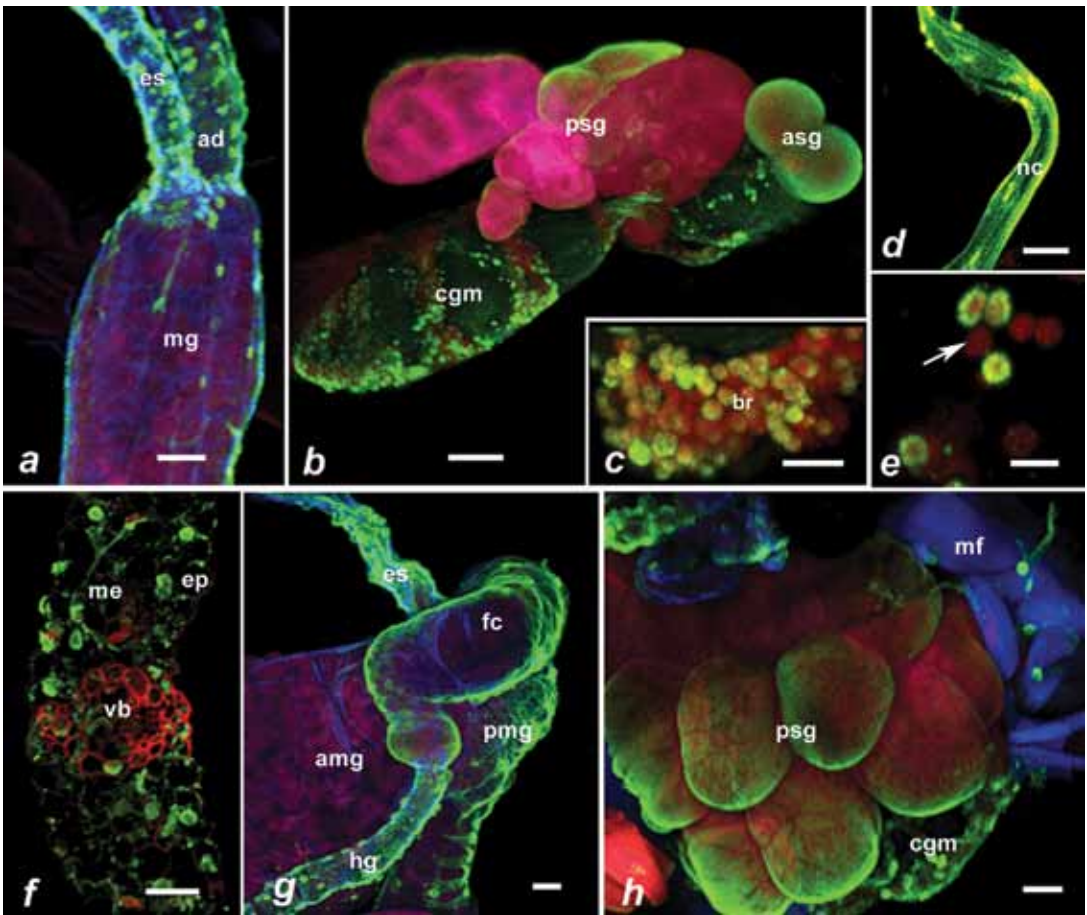
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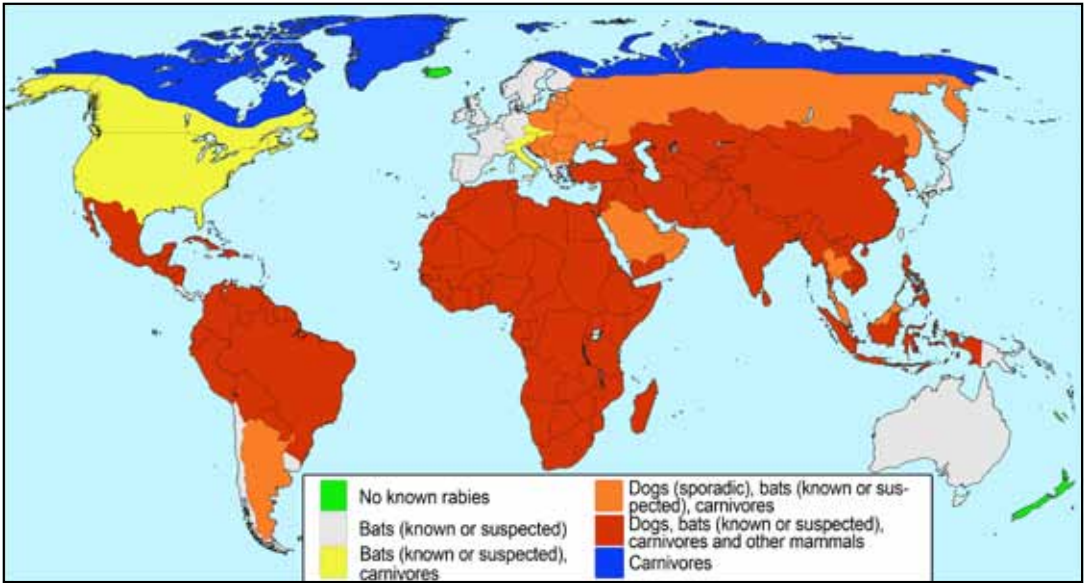
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**Figure 10.3** Immunofluorescence localization of maize-infecting rhabdoviruses in organs and tissues of their insect vectors. (a–e) Localization of maize mosaic virus (green fluorescence) in cells of the planthopper vector's (*Peregrinus maidis*) alimentary canal (a), salivary gland and compound ganglion (b) brain, (c) nerve cord (d) and hemocytes (e). (f–h) Localization of maize fine streak virus (green fluorescence) in cells of a maize leaf (f), and the leafhopper vector's (*Graminella nigrifrons*) alimentary canal (g), salivary gland and compound ganglion (h). Dissected organs or hemolymph smears were incubated with virus-specific antibodies, then with a secondary antibody, Alexa Fluor 488 (green), the nuclear stain propidium iodide (red), and (in a, g and h) with an actin stain, Phalloidin (blue/purple). Abbreviations: ad, anterior diverticulum; amg, anterior midgut; asg, accessory salivary gland; br, brain; cgm, compound ganglionic mass; ep, epidermis; es, oesophagus; fc, filter chamber; hg, hindgut; me, mesophyll; mf, muscle fibres; mg, midgut; nc, nerve cord; pmg, posterior midgut; psg, principal salivary gland; vb, vascular bundle. The arrow in (e) indicates the nucleus of an uninfected haemocyte. Scale bars=40  $\mu\text{m}$ , except in (c) and (e) (10  $\mu\text{m}$ ). Adapted from Ammar et al. (2009).



**Figure 13.1** Global rabies distribution by reservoir. (Map redesigned courtesy of I.V. Kuzmin).