Record Nr. UNINA9910437850503321 Forebrain atlas of the short-tailed fruit bat, carollia perpicillata: Titolo prepared by the methods of nissl and neun immunohistochemistry / / Frank Scalia New York, : Springer, 2013 Pubbl/distr/stampa **ISBN** 1-4614-7156-7 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (91 p.) Altri autori (Persone) ScaliaFrank 599.45 Disciplina Soggetti Carollia perspicillata - Physiology Brain - Physiology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Introduction -- Notes on Nomenclature and Labeling -- List of Abbreviations -- Index of Labeled Structures -- Low-power Whole-Section Series (Bars = 1.0 mm) -- Plates L1-L23 -- Selected Higher-Resolution Frames -- Thalamus (Bars = 0.5 mm): Plates T1-T12 --Amygdaloid Region (Bars = 1.0 mm): Plates A1-A12 -- Literature Cited. . Sommario/riassunto Carollia perspicillata, a tropical species, is the only bat that has essentially been domesticated and can be maintained and propagated in a research environment utilizing simple, inexpensive husbandry procedures. This atlas contains the first quality treatment of a bat species, and is unique in its use of NeuN staining. The NeuN preparations used selectively stain neurons in a sharp black coloration that fills not only the cell body but extends a short distance along the proximal dendrites. Thus, as distinct from the traditional nissl stains, the NeuN generates a quasi Golgi-like image of the neurons, providing a more intimate view of the neurons than can be obtained from nissl staining. In addition, the background is essentially white, facilitating high-contrast photography and allowing for gray-tone illustration without any loss of information. The NeuN procedure does not stain axons, and since it does not stain glial cells or their nuclei, the noise

ordinarily generated in nissl stains by the presence of glial cells among

the neurons and in the white matter is entirely eliminated. The

Forebrain Atlas of the Short-tailed Fruit Bat also includes nissl stained sections for comparison. Since it is known that NeuN is not expressed in certain neurons, such as Purkinje cells, olfactory bulb mitral cells, and the cells of the paraventricular and supraoptic nuclei, the nissl stained sections are also included to provide complementary views of such structures.