

Resource Summary Report

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Virtual Atlas of the Honeybee Brain

RRID:SCR_007133

Type: Tool

Proper Citation

Virtual Atlas of the Honeybee Brain (RRID:SCR_007133)

Resource Information

URL: <http://www.neurobiologie.fu-berlin.de/beebrain>

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Description: Standard brain atlas of the honeybee presented as an interactive three-dimensional surface model with integrated neuron and neuronal tracts. The standard atlas was created as an average-shape atlas of 22 neuropils, calculated from 20 individual immunostained whole-mount bee brains. After correction for global size and positioning differences by repeatedly applying an intensity-based nonrigid registration algorithm, a sequence of average label images was created. The Honeybee, *Apis mellifera* has been studied extensively with respect to its sensory and neural capacities in navigation, communication, visual and olfactory learning and memory processing. The goal is to integrate the entirety of information into a Virtual Atlas of the Honeybee Brain. This common spatial reference map will potentiate the representation of structural and functional data obtained in different experiments and from different individuals.

Abbreviations: Virtual Atlas of the Honeybee Brain

Resource Type: atlas, data or information resource, reference atlas

Defining Citation: [PMID:16175557](#)

Keywords: anatomy, honeybee, brain, insect, insecta, normal, antennal lobe, olfactory

Funding: BMBF

Resource Name: Virtual Atlas of the Honeybee Brain

Resource ID: SCR_007133

Alternate IDs: nif-0000-00089

Record Creation Time: 20220129T080240+0000

Record Last Update: 20260912T200057+0000

Ratings and Alerts

No rating or validation information has been found for Virtual Atlas of the Honeybee Brain.

No alerts have been found for Virtual Atlas of the Honeybee Brain.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 6 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Schatton A, et al. (2018) FoxP in bees: A comparative study on the developmental and adult expression pattern in three bee species considering isoforms and circuitry. The Journal of comparative neurology, 526(9), 1589.

Zwaka H, et al. (2016) The Circuitry of Olfactory Projection Neurons in the Brain of the Honeybee, *Apis mellifera*. Frontiers in neuroanatomy, 10, 90.

Gabor Miklos GL, et al. (2011) Epigenomic communication systems in humans and honey bees: from molecules to behavior. Hormones and behavior, 59(3), 399.

Ito K, et al. (2010) Technical and organizational considerations for the long-term maintenance and development of digital brain atlases and web-based databases. Frontiers in systems neuroscience, 4, 26.

Rybak J, et al. (2010) The Digital Bee Brain: Integrating and Managing Neurons in a Common 3D Reference System. Frontiers in systems neuroscience, 4.

Mustard JA, et al. (2008) Acute ethanol ingestion impairs appetitive olfactory learning and odor discrimination in the honey bee. Neurobiology of learning and memory, 90(4), 633.