

1. Record Nr.	UNINA9910298308303321
Autore	Hepburn H.R
Titolo	Honeybee Nests : Composition, Structure, Function / / by H.R. Hepburn, C.W.W. Pirk, O. Duangphakdee
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2014
ISBN	3-642-54328-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (395 p.)
Disciplina	547 570 571.4 595.7
Soggetti	Entomology Biophysics Biomaterials Bioorganic chemistry Biological and Medical Physics, Biophysics Bioorganic Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	General Introduction -- Nesting: Sites, Space and Density in Comb-building -- Self-organization of Nest Contents -- Intraspecific and Interspecific Comb-building -- Communication by Vibrations and Scents in Comb -- Wax Secretion, Comb Construction and the Queen -- The Significance of Brood -- The Role of Pollen in Honeybee Colonies -- Nectar Flows and Comb-building -- Construction of Combs -- Energetics of Honey/Beeswax Conversion -- Construction of Cells -- Conversion of Wax Scales into Comb Wax -- Material Properties of Scale and Comb Wax -- The Wax Gland Complex -- The Chemistry of Beeswax -- Synthesis of Beeswax -- Material Properties of Honeybee Silk.
Sommario/riassunto	This work, a sequel to Honeybees and Wax published nearly 30 years ago, starts with a brief introduction and discussion of nesting sites,

their spaces and densities, self-organization of nest contents, and interspecific utilization of beeswax. The following chapters cover communication by vibrations and scents and wax secretion, and discuss the queen in relation to the combs. Discussions on completed nests include the significance of brood, the roles of pollen and nectar flow, and comb-building, and are followed by a triad of related chapters on the construction of cells and combs and their energetic costs. An in-depth examination of the conversion of wax scales into combs, the material properties of scale and comb waxes, and the wax gland complex are presented. The next chapters are devoted to a comprehensive analysis of the literature on the chemistry and synthesis of beeswax, and, finally, the material properties of honeybee silk are highlighted.
