



CENTRAL COAST BEEKEEPERS NEWSLETTER

November 2023

NEXT Meeting November 29th, 2023

Monthly Meeting Wednesday, November 29th at 1:30

We Need Your Vote!

This month's meeting is on the fifth Wednesday of the month to accommodate the Thanksgiving holiday. We will be electing a slate of officers including the President position. If you have ever wanted to lead the club, here's your chance. See the President's letter below for more details.

The meeting is on the 5th Wednesday of this month only on November 29th at 1:30 at the Newport Library.



PRESIDENT'S MESSAGE

By Max Kuhn

The November meeting is coming up soon. The date has been adjusted to accommodate the Thanksgiving holiday. The meeting this month is on the **29th of November at 1:30PM at the Newport public library.**

This is an important meeting and your attendance is requested. We will be electing officers for 2024. We must have a full slate of officers elected at this meeting before we can schedule a meeting in 2024. Hope to see you there.

A big Thank You goes out to all who helped the Club limp through 2023. We participated in several events during the year including a plant sale in Florence, a Library event in Waldport, the Lincoln County Fair, the Oregon State Fair, and more. **Thank You!**

A special thank you goes out to **Judi Irving** for all her work on the club newsletter. You will be missed! The same goes for **Roland Taylor** who diligently provided refreshments at the club meetings, at his own expense, for 2023 and before.

Hope you all have a great Thanksgiving!



Message From the Newsletter Editor

A big thank you is also in order to Jeremy Egolf (and wife Beckie) who have volunteered to take over the newsletter editor functions in 2024. They've got some great ideas on how to make the newsletter even better. Looking forward to seeing their changes in 2024!

Monthly Beekeeping Tips

by Todd Balsiger - Oregon State Beekeepers Association

Months of November and December

November and December are two months to enjoy the lack of bee work. That being said, I will still make you think that there is a lot to do by what I write below:

- For us in the Northwest, excessive moisture in our hives is one of our biggest concerns. Make sure lids are watertight, that hives are tilted so water drains out and away, and that there is sufficient ventilation. This is even more important in January when brood rearing and metabolism increase hive moisture.
- At this time the bees are clustered together in dormancy, except for those periodic warm spells that allow the bees to break their cluster, move closer to stored honey, and make those all-important cleansing (defecating) flights.
- These periodic warm spells afford the opportunity to visually assess the health of our hives and to do emergency manipulations, if necessary. As a rule, never open a hive during the winter unless there is a good reason, and the temperature is at least 45°F. Work around the cluster rather than through the tightly formed bees.
- Take note of the colonies that are flying little or not at all during these periodic warm spells. Do a cursory check for weight (lift the hive to assess) and to determine whether or not the hive is alive (place your ear against the wall, thump the hive with your hand, and listen for the buzz).
- For hives low on stores, feed fondant or frames of honey, or possibly retire the colony. Do not feed syrup at this time. Bees cannot remove the extra moisture, and too much water in the bees diet in conjunction with confinement leads to dysentery.
- An ideal way to feed fondant is to use lids with rims and to pour the fondant directly into the void. These lids can have up to 5 pounds of feed and last 2-3 weeks.

- Drivert has been discussed as an alternative to regular fondant (or dry sugar) on the OSBA Message Board. Drivert has existed for at least 30 years as a potential alternative for emergency feed. This feed is composed of 92% finely pulverized sucrose along with 8% invert sugar. According to C&H, Drivert is "a dry fondant sugar used in icings and pan-coated confections."
- For dead-outs, determine why the hive succumbed (usually queenlessness) and make sure frames are free of scale from American foulbrood. Shake out the dead bees. Then, clean and return the equipment to storage.
- Check your apiary occasionally -- especially after a wind storm. Make sure that the lids are secure and verify that animals (e.g., mice, bears, and humans) have not been bothering (e.g., chewing, eating, or vandalizing) the hives.
- Consider placing your order for queens now. Demand for queens has increased during the last few years.
- Give honey and/or candles to family, friends, farmers, and growers for the season and holidays.

The Mighty Honeybee Mandibles: Unveiling Nature's Secret Weapon for a Thriving Hive and Bountiful Honey Yield

By: Funtastici 2023

<https://beekeepinginformation.com>

Exploring the Fascinating World of Honeybee Biology: Understanding the Significance of Honeybees' Mandibles

Honeybees are incredible creatures, diligently buzzing from flower to flower, pollinating plants and producing the golden nectar we all know and love. Within their complex biology lies a crucial component known as their mandibles. These specialized mouthparts play a vital role in the honeybees' daily activities, ultimately contributing to the survival and success of their colonies.



Understanding Honeybees' Mandibles:

Mandibles are the paired jaws located on either side of a honeybee's head. These robust structures are both functional and multifaceted, enabling honeybees to perform various tasks essential for their survival and the well-being of their hive. Let's delve deeper into the importance of honeybees' mandibles and the significant roles they play in their biology.

1. Feeding and Nutrition:

The primary purpose of honeybees' mandibles is to facilitate feeding and nutrition. Equipped with serrated edges, the mandibles enable honeybees to chew and manipulate pollen, nectar, and other plant substances. By skillfully using their mandibles, honeybees break down flower petals and collect pollen grains, a crucial source of protein for their diets. Additionally, they use their mandibles to scrape resin from trees and plants, which they later transform into valuable propolis.

2. Hive Construction and Maintenance:

Honeybees' mandibles also serve a vital role in the construction and maintenance of their intricate hives. These resilient jaws help honeybees shape and manipulate beeswax, a substance secreted from specialized glands on their abdomen. By gripping and pulling the beeswax with their mandibles, honeybees can mold it into hexagonal cells, creating the iconic honeycomb structure where they store honey, pollen, and raise their young.

3. Defense Mechanism:

Honeybees are highly organized social insects, and their mandibles play a crucial role in defending their colony against potential threats. When sensing danger, honeybees use their mandibles to bite and grip intruders, such as predators or competing insects. Though their stinger is typically their primary line of defense, the mandibles provide an additional layer of protection, allowing honeybees to immobilize and potentially injure adversaries.

4. Queen Rearing:

The intricacies of honeybee society include the remarkable process of queen rearing. The mandibles of worker honeybees are involved in selecting larvae destined to become queens. Worker bees carefully uncap cells containing young larvae and inspect them with their mandibles. Based on specific hormone levels and nutritional factors, worker bees determine which larvae have the potential to develop into future queens. This selection process showcases the adaptability and importance of honeybees' mandibles in shaping the destiny of their colony.

Anatomy of Honeybee Mandibles

Here, we will explore the fascinating world of honeybee mouthparts, with a specific focus on the intricate structure and vital role of their mandibles. As we delve into the honeybee's anatomy, we will uncover the remarkable ways in which their mandibles contribute to their survival and success in various aspects of their lives.

Description of Honeybee's Mouthparts:

The mouthparts of a honeybee are not only essential for their feeding activities but also play a crucial role in defense mechanisms and maintaining personal hygiene through grooming. Let's begin our exploration by understanding the different components of honeybee mouthparts:

- **Labium:** The labium is the lower lip of the honeybee's mouthparts and consists of two lobes that enclose the other mouthparts. It acts as a protective covering for the rest of the mouthparts.
- **Maxillae:** Located above the labium, the maxillae are a pair of appendages that aid in tasting and manipulating food. They possess tiny hairs called "palps," which play a crucial role in detecting and collecting pollen and nectar.
- **Labrum:** Positioned above the maxillae, the labrum acts as an upper lip for the honeybee's mouthparts. It helps in holding and manipulating food during feeding.

Mandibles' Structure and Location:

The mandibles, situated on either side of the honeybee's head, are one of the most striking features of their mouthparts. These strong, elongated structures are highly adapted for various functions and exhibit intricate structural details:

- **Chitinous Composition:** Like other parts of an insect's exoskeleton, honeybee mandibles are also composed of chitin, a tough and flexible substance that provides strength and resilience.
- **Serrations and Teeth:** The outer edges of honeybee mandibles are equipped with serrations and teeth, which aid in tasks requiring precision and strength, such as gnawing through plant material or defending the colony from intruders.
- **Glandular Pits:** On the inner surface of the mandibles, honeybees possess tiny glandular pits. These pits secrete pheromones, chemical substances that play a pivotal role in communication among the members of the colony.

Roles of Mandibles in Honeybee's Life: Feeding, Defense, and Grooming:

The honeybee's mandibles serve multiple purposes in their daily lives, enabling them to carry out crucial tasks essential for their survival and overall well-being:

- **Feeding:** Honeybees use their mandibles to grip and cut plant material, such as flowers and leaves, while foraging for pollen and nectar. The serrations and teeth present on the mandibles assist in this process, helping them collect food efficiently.
- **Defense:** When the honeybee colony faces threats from predators or intruders, the mandibles are deployed as a formidable weapon. The sharp teeth and strong mandibular muscles allow honeybees to bite and attack, effectively warding off potential dangers.
- **Grooming:** Maintaining cleanliness is of utmost importance to honeybees, especially considering their densely populated colonies. The mandibles play a vital role in this aspect by aiding in grooming activities. Honeybees use their mandibles to remove foreign particles or pests from their bodies and the bodies of their fellow bees, safeguarding the overall health of the colony.

Honeybee Mandibles and Human Interaction

Here, we discuss the role of honeybee mandibles, the challenges and risks associated with honeybee bites, and highlight the importance of comprehending their mandibles for effective beekeeping practices.

Implications of honeybee mandibles in human activities:

Honeybee mandibles, also known as jaws, are powerful tools that honeybees utilize to navigate their environment and engage in various activities. These mandibles are specifically adapted for multiple functions that impact human activities in various ways:

- **Pollination:** Honeybees are paramount pollinators, and their robust mandibles enable them to access nectar and pollen from flowers. Through their feeding actions, honeybees inadvertently transfer pollen, helping plants reproduce and ensuring healthy crop production.
- **Honey Production:** Honeybees collect nectar using their mandibles, which they then store and convert into the delicious honey we all adore. The mandibles assist them in removing wax caps from honeycomb cells, allowing access to stored honey.
- **Comb Building:** Honeybees construct intricate hexagonal wax combs using their mandibles. These combs serve as a foundation for raising brood, storing honey, and maintaining the structural integrity of the beehive.

Challenges and risks associated with honeybee bites:

While honeybees are typically docile creatures, they may resort to biting as a defensive mechanism when they perceive a threat. Understanding the challenges and risks associated with honeybee bites is crucial for both beekeepers and individuals interacting with honeybees:

- **Allergic Reactions:** For individuals with allergies or sensitivities to bee venom, a honeybee bite can lead to severe allergic reactions, including swelling, itching, difficulty breathing, and, in rare cases, anaphylaxis. Immediate medical attention is necessary in such cases.
- **Pain and Discomfort:** Even for those without allergies, honeybee bites can cause pain, redness, swelling, and itching at the site of the bite. Although these symptoms typically subside within a few hours, they can be distressing.

Importance of understanding honeybee mandibles for effective beekeeping practices:

To ensure successful beekeeping practices and minimize potential risks, it is essential for beekeepers to have a comprehensive understanding of honeybee mandibles:

- **Hive Management:** By understanding how honeybee mandibles function, beekeepers can facilitate better hive management. This knowledge assists in implementing appropriate strategies for honey production, comb maintenance, and overall hive health.
- **Beekeeper Safety:** Knowing the capabilities and characteristics of honeybee mandibles allows beekeepers to handle their hives with caution, reducing the chances of bee stings and bites.
- **Colony Health Assessment:** Examining the condition of honeybee mandibles provides insights into the overall health of the colony. Changes in mandible characteristics may indicate diseases or nutritional deficiencies that require immediate attention.

Conclusion

The mandibles of honeybees are truly extraordinary structures, playing a crucial role in their biology and hive dynamics. These impressive jaws enable honeybees to acquire essential nutrients, construct intricate hives, defend their colony, and even influence the fate of their society through queen rearing.

By understanding and appreciating the importance of honeybees' mandibles, we gain a deeper appreciation for the intricate and interconnected world of these remarkable pollinators.



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Club Info

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