



The Stilt

Volume 3, Issue 7
July 2001

Newsletter of the Bridgerland Audubon Society

Identification of Bumble Bees of Northern Utah

Cache Valley and its neighboring mountains are home to 11 species of native bumble bees. Among them are the region's largest bees, particularly the robust queens seen flying and foraging in the spring when they are establishing and provisioning a nest. Bumble bees are important pollinators of our native flora, especially in the mountains, as well as some of our garden plants.

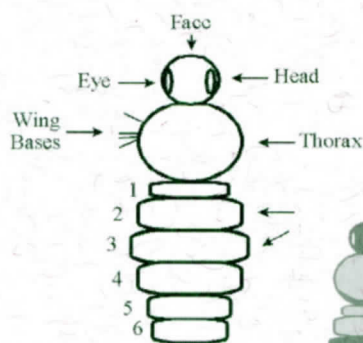
Bumble bees possess three attributes that will help you to distinguish them from all other bees in the region: they are big, they are more furry than most other bees, and females transport pollen as a wet mass held in a "pollen basket" on the hind leg. The pollen basket of the hind pair of legs is broadened and concave like a shallow, elongate spoon. If empty, its polished surface can be seen reflecting light. Only the honey bee in our fauna has a similar pollen basket; all

other bees here that collect pollen carry it in a dense brush of hairs either on the hind leg or under the abdomen. Bumble bees are much more furry than the honey bee, the only other bee here that has a pollen basket.

We have depicted the eleven bumble bee species of Cache Valley and neighboring mountains as stylized portraits. Each portrait depicts the bee's back from above, with their heads facing the top of the screen (or page). Legs and wings are not shown, as they lack diagnostic features. The accompanying figure will guide you through the different relevant parts of a bee.

difficult to distinguish in the field, especially worn individuals, but other species can be recognized given a trained eye. There are three attributes of a bumble bee's furry coat that you should see and note for identification. Progressing from head to abdomen, these are:

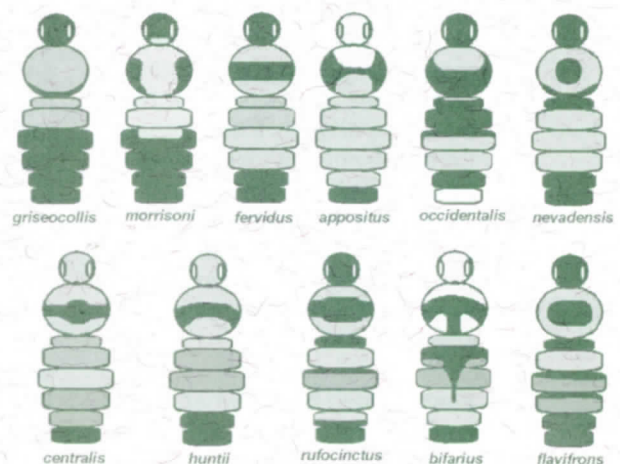
- 1) Head.** What is the hair color atop the head yellow or black?
- 2) Thorax.** Is there a patch of black hair on the top of the thorax, between or behind the wings? If so, is it a disc of black, a band of black, or is the entire hind half of the thorax covered in black hair?
- 3) Abdomen.** Is the tip white? Are there orange bands? Which segments are orange? Is an orange band split by a central black stripe along the upper surface? Are the yellow hairs greenish or golden?



Some of the species will be exceedingly

This might seem like a lot of detail

This article is available on the internet (<http://www.loganbeelab.usu.edu/>) and includes this chart in color, which is necessary for identification.



to gather from such a small creature, but with a bit of practice it becomes easy and quick to see and note these features, just as when you are trying to identify a bird. To make it a bit easier, carry a notebook in which you can jot down the information or sketch the bees that you see. Binoculars can help with bees on bushes or in more inaccessible places. Importantly,

take the time to enjoy watching the bee as she forages, and listen for her buzzing those flowering species that shed their pollen like a salt shaker through tiny pores at the tips of the anthers.

- written by Jim Cane
with help from Matt Shepherd;
illustrations by Linda Kervin



HawkWatch International and Utah Power Partner to Reduce Power Line Electrocution of Raptors

On June 12, 2001, HawkWatch International (HWI) and Utah Power held a joint press event to announce the Raptor Electrocution Reduction Program (RERP), an innovative effort to identify power lines that present a danger to eagles, hawks, owls, and other large birds, which can be injured or killed if they perch on certain power line structures. This program aims to identify poles that present an electrocution risk to birds and to retrofit these poles.

HWI is a non-profit organization dedicated to monitoring and protecting hawks, eagles, other birds of prey and their environment through research, education, and conservation. Recently, HWI developed a Raptor Conservation Strategy that identifies threats to raptors, including electrocution on power lines, and actions for HWI to pursue to address these threats. Consequently, HWI has entered into this partnership with Utah Power. To implement this and other raptor conservation programs, HWI hired Conservation Scientist Sherry Meyer this past March.

Electrocution occurs when a bird completes a circuit by either touching two energized lines or

parts, or by touching an energized and a grounded line or part. Although efforts have been made to reduce raptor electrocutions on power lines for the past few decades, the threat still persists. Species most at risk include Golden Eagles, Ferruginous Hawks, Red-tailed Hawks, and Great-horned Owls.

Systematic collection of raptor electrocution data are limited, so we can only make estimates of annual mortalities based on what we know from limited data and surveys. For instance, the US Fish and Wildlife Service received reports of 128 avian electrocutions in a 1½-year period in Utah alone, 35 of which were eagles. Similarly, approximately 500 raptors, mostly eagles, were electrocuted each year during a six-year study in Nebraska. Thus, it is safe to say that hundreds of raptors, if not more, are electrocuted on power lines in the West every year.

Raptors are protected through the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Endangered Species Act, as well as state regulations. Under these acts, utilities can be prosecuted for not retrofitting poles that have electrocuted

birds.

Utah Power has actively cooperated with state and federal wildlife officials for the past decade on reporting bird mortalities and developing raptor-safe power line designs. Most of the company's new lines incorporate these designs. Working with HWI represents an expansion of Utah Power's efforts to operate a raptor-safe power grid.

The Raptor Electrocution Reduction Program includes the following components:

- * HWI and Utah Power are developing a Geographic Information System, or GIS, to identify high-risk areas for electrocutions and prioritize retrofitting efforts.
- * The GIS will incorporate data on historic electrocutions, power line and pole locations and configurations, and the distribution of raptors and their habitat.
- * HWI field crews and volunteers will survey lines in selected areas throughout Utah this summer and fall to locate electrocuted birds and identify problem poles, and collect additional data for the GIS model.
- * High-risk poles where dead bird are found will be fixed and follow-up surveys will be conducted to

Audubon Calendar

There will be no general (second Thursday) meetings in the summer.

July 7. Tony Grove wildflower walk. A family hike leaving from the Tony Grove area to study wildflowers, mountain birds, and whatever strikes the fancy of our naturalist guide. The basins around Tony Grove harbor quiet groves of trees, limestone sinkholes, and rich meadows. The breeding season will be winding down for the birds, but it's still a great time to see some of the montane species and possibly some rarities like Purple Martin and Rufous Hummingbirds. Trip leaves 8:00 a.m. from the parking lot north of the Straw Ibis (150 North 50 East) in Logan. This is a joint field trip with the Utah Native Plant Society, and Reinhard Jockel will be our trip leader. For more information, call Don, 753-2051

More community events are available at: <http://www.bridgerlandaudubon.org/greencalendar>

Outings: Don McIvor, 753-2051, puma@cache.net

evaluate the effectiveness of retrofitting efforts.

* The Utah Division of Wildlife Resources and the U.S. Fish and Wildlife Service are also contributing time, data, and expertise to the project.

If this pilot program works well, HWI and Utah Power hope to develop a multi-year, multi-faceted program to address this problem, including continuing and expanding surveying and modeling efforts into other states in 2002.

The problem of power line electrocution of raptors is widespread and will not go away overnight. But it is our hope that these efforts can serve as a model for the rest of the utility industry. HWI is pleased to see an increase in activity and funding by Utah Power to address the raptor electrocution problem, and hopes to see other utilities follow. Another avenue through which HWI will become more actively involved in

helping address this problem is through participation in the Avian Powerline Interaction Committee, also known as APLIC. APLIC is the industry roundtable formed over 25 years ago to exchange ideas and formulate practices to address this problem.

HWI welcomes volunteers to assist this project and reduce the threat of power line electrocutions to raptors. Volunteer surveyors are needed to walk power lines in search of electrocuted birds, identify potentially hazardous power poles, record observations of live raptors, and collect habitat data. Assistance is needed from mid-July through late November. Training will be provided. If you would like to participate in field surveys, please contact Sherry at meyer@hawkwatch.org or 801/484-7086.

-Howard Gross
hgross@hawkwatch.org

Welcome

Renewing members

Joyce Anderson
Mrs. Charles Chism
Carolee Hammel
Frederick F. Knowlton
Mark Leonhardt
Jennifer MacAdam
Sonya McBride
Kieth Nielsen
Thomas J. Schroeder
Theresa Zmola



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Wild Hair Humor

A man decides to join the circus. He shows up to demonstrate his skills to the impresario. "I have the most unusual act," he announces. "I'm sure it will amaze you." He proceeds to climb a tall tower, and jumps off. He flaps his arms wildly, and finally his fall slows. He soars upward, turns and swoops back again. Finally he stops in mid air and gently lowers himself to the ground. The impresario stares blankly at him for a long time. Finally he says, "Is that all you've got? Bird impressions?"

Membership in the Bridgerland Audubon Society includes a subscription to *The Stilt*, as well as *Audubon* magazine. The editor of *The Stilt* invites submissions of any kind, due on the 15th of each month. Send to stiltnews@hotmail.com

National Audubon Society Chapter Membership Application

Yes, I'd like to contribute to Audubon and receive the Bridgerland Audubon newsletter *The Stilt* and the *National AUDUBON* magazine, as a:

- New member of the National Audubon Society and Bridgerland Audubon.
- Renewing member of the National Audubon Society and Bridgerland Audubon.
- Subscription only to the *Stilt*: \$20/year. Do not send *Audubon* magazine.

My check for \$_____ is enclosed (\$20 membership dues)

Name _____

Address _____

City _____ State _____ ZIP _____



Please make all checks payable to National Audubon Society and send with this card to:
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National Audubon occasionally makes its membership list available to selected organizations. To have your name omitted from this, please check this box.