

Title of Session: Nuts About Nature-M is for May, Mother's Day, and Migration

Moderator: Bill Hilton Jr.

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BJ: Welcome to tonight's Nuts About Nature discussion led by Bill Hilton Jr.

BJ: We usually start the discussions in Tapped In with introductions so the discussion leader has an idea of his audience

BJ: I'm an art teacher in Pennsylvania and a helpdesk volunteer for Tapped In

KyteriaR: I am a student teacher at the University of Houston

SusanR: K to 8 Occasional Teacher from Canada

BJ: Welcome, Susan. We've just started introductions

SusanSi: Hi, I teach 4th grade science and math in NETexas--rural

BillHi: I guess that leaves me?

BJ: applauds our fearless leader

BillHi: I'm Bill Hilton Jr., executive director of Hilton Pond Center for Piedmont Natural History in York, South Carolina.

BillHi: I taught high school and college biology for 20 years and do a lot of teacher training and public nature lecturing around the country.

BillHi: Let me start by outlining tonight's goals.

BillHi: "Nuts About Nature" is designed to provide you with information about how to learn about the natural world around you and then share that knowledge with your current or future students.

BillHi: Anything that fits that framework is fair game for discussion, but we have a general start-out topic each month.

BillHi: Tonight it's M is for May, Mother's Day, and Migration."

BillHi: I'll start out with a question.

DeborahLS joined the room.

BillHi: Welcome, Deborah. please intro yourself.

DeborahLS: Hi, I'm an Instructional technologist from the greater Houston area.

BillHi: Here's my lead-off question: Define "migration."

BillHi: (I guess that wasn't a question, but you know what I mean.)

KyteriaR: migration means to travel from one place to another

BillHi: Anyone else?

DeborahLS: traveling in a predictable way, by instinct?

BillHi: That's two responses.

SusanR: movement from one location to another

SusanSi: going from one region to another--to a better climate

BillHi: So far the answers sound like they're more appropriate for a sociology chat rather than one about nature.

KyteriaR: oh ok I know birds migrate. Is that what you are referring too.

BillHi: Well, that's an example, but not a definition.

DeborahLS: Movement of a species -- usually birds -- in a predictable pattern, following particular seasons -- back and forth, over time -- one generation after another. Am I hitting "science" yet?

BillHi: That's a lot better.

KyteriaR: oh ok. It is when animals relocate to another region to find a better climate to live in.

BillHi: Deborah is closer to being correct.

BillHi: Migration requires two-way movement, out and back.

BillHi: Otherwise, it's dispersal.

BillHi: Migration is not limited by any means to birds . . .

SusanR: the periodic passage of groups of animals (especially birds or fishes) from one region to another for feeding or breeding

BillHi: . . . but that's what folks usually think of.

DeborahLS: Susan -- did you look that up?

BillHi: Sounds like a dictionary definition.

SusanR: yes.. the periodic passage of groups of animals (especially birds or fishes) from one region to another for feeding or breeding

BillHi: I don't like the attachment of "reasons" for migration to the definition.

BillHi: Mostly because there are so many variations on the theme.

DeborahLS: Is that because they aren't consciously deciding to do it -- but doing it by instinct?

BillHi: Excellent!

BillHi: Anytime we try to apply "reasoning" to animal behavior we end up being anthropomorphic.

BillHi: Let me give you an example.

DeborahLS: Applying human characteristics to things that are not human?

BillHi: Correct.

BillHi: You probably know I study hummingbirds.

SusanR: the movement from one place to another (especially from one country to another) usually with intention to settle

BillHi: That's a sociological definition.

SusanSi: no intentions allowed

DeborahLS: I think that's a definition for human migration.

BillHi: Ruby-throated Hummingbirds occur in 38 states and southern Canada from about April through about October.

KyteriaR: yes it does sound like a more social definition that applies to humans

BillHi: They begin to leave those locations in late summer or early fall and fly to Mexico or one of the 7 Central American countries,

BillHi: If I were to commit an anthropomorphic error, I would ask a student "Why do the hummingbirds migrate?"

DeborahLS: Yes.

SusanR nods

KyteriaR: yes

SusanSi: fourth graders would not realize this difference I don't think

BillHi: It's your job to help them understand the difference.

SusanSi: ok

KyteriaR: how would we explain that concept to forth graders?

BillHi: So I'll ask that question: What are some possible benefits of Ruby-throated Hummingbirds leaving the U.S. & Canada in autumn and flying to Mexico & Central America?

DeborahLS: I think it's an important distinction for them to get, though. So many adults assign "thinking" to animals, when it's instinct.

SusanSi: warmer weather

BillHi: (Kyteria, I'll come back to your question.)

SusanR: food and warmth

DeborahLS: Benefits are higher survival rates, due to "wintering" in a warmer climate

....

BillHi: So are they leaving colder weather or going toward warmer weather? (Don't say "both.")

DeborahLS: That sounds like a chicken or the egg question.

SusanSi: leaving colder?

BillHi: Nothing wrong with those.

SusanR: do hummingbirds migrate in response to hormonal changes that are triggered by changing length of daylight, Bill

BillHi: Anyone else?

BillHi: Yes, we think migration in hummers is triggered by day length, especially on the northerly route.

DeborahLS: Changing length of daylight, triggering migration -- sounds good.

KyteriaR: I thought most animals leave to go to warmer weather

BillHi: Okay, Kyteria, why might it be important for a hummingbird to go toward warmer weather?

BillHi: Plenty of kinds of birds spend the winter in the U.S. and Canada.

BillHi: Anyone?

KyteriaR: I don't know much about humming birds. I thought that they needed to live in warmer weather

BillHi: The simplest answer probably has to do with food.

BillHi: What do hummers eat?

DeborahLS: Food? Hummingbirds are designed (their beaks) for a particular food not available in cold weather?

DeborahLS: Particular flowers?

BillHi: Not "designed for" but "adapted to."

KyteriaR: I thought humming birds needed nectar from specific types of flowers that only grows in warm weather

BillHi: Okay, now you have it.

SusanSi: bright colors attract them

BillHi: Hummingbirds may not be bailing out because of cold weather, but because of the lack of food.

BillHi: They are indeed nectar eaters, and flowers don't do so well in cold weather.

BillHi: By the way, they also eat tiny insects like fruit flies.

BillHi: And neither flowers or tiny insects survive the winter in much of Canada and the U.S.

BillHi: Obviously, there are flowers and insects in the tropics.

KyteriaR: was I right? I just used prior knowledge I had about birds in general.

BillHi: So here's the BIG question. If hummers migrate--and they do--why not just stay in the tropics all winter and then the rest of their lives?

SusanR: Don't they leave when their instinct tells them to even though fruitflies and nectar may still be available, Bill

BillHi: Well, it is instinctive behavior, but the instinct is cued to photoperiod.

BillHi: When it's time to go, it's time to go, regardless of the temperature or food availability.

BillHi: So I repeat, why come back the next year?

BillHi: And don't answer "instinct."

KyteriaR: I often wondered that. If they like the warm weather so much, why don't they just stay?

SusanSi: larger food supply

BillHi: What are the advantages of returning to the U.S. and/or disadvantages of staying in the tropics?

BillHi: Larger food supply where?

SusanSi: here

SusanR: at the beginning of the season

BillHi: And, Susan Si, why would they need a larger food supply?

DeborahLS: Breeding. Raising young.

BillHi: Okay, Deborah has it.

BillHi: As rich and diverse as the tropics are, there's not enough food to feed yourself and raise your young--even if you're a hummingbird.

BillHi: Ruby-throated hummingbirds were pioneers that exploited 38 states and Canada, and they're still the only hummers in the eastern U.S.

BillHi: But they still return to the tropics in winter.

SusanSi: I love to watch them

BillHi: So, bottom line is it's not the cold directly, but the impact of the cold on food supply that makes it advantageous for hummers to go south in autumn.

BillHi: Next question:

BillHi: Would you guess the same bottom line applies to other birds that migrate south in autumn?

KyteriaR: yes, I thought that all birds migrated for the same region.

BillHi: Reason?

DeborahLS: Yes.....the ones I remember who didn't migrate were the ones who could get by on food available in the winter.

BillHi: Well, to give the short answer, food is probably the most important factor.

BillHi: Which leads me to my next topic.

BillHi: In the time we have left, I'd like everyone to take a look at the Web site for Hilton Pond Center for Piedmont Natural History, specifically at <http://www.hiltonpond.org>

BillHi: Click on that link and wait for me there.

BillHi: Everybody got it?

DeborahLS: yes

BillHi: Okay. Scroll down to "This week at Hilton Pond" and click on the link to "The Birds of Spring."

BillHi: Here's a brand-new photo essay and YOU are the first ones to see it.

KyteriaR left the room (signed off).

BillHi: Kyteria, it's at <http://www.hiltonpond.org/ThisWeek040501.html>

DeborahLS: Incredible photos, again.

BillHi: This whole photo essay is in your honor and deals with migrant songbirds that showed up last week at Hilton Pond.

BillHi: Thanks, Deborah.

BillHi: If you're new to Nuts About nature, I hope you'll bookmark the Hilton Pond site and visit it often at <http://www.hiltonpond.org>

BillHi: Any questions about "The Birds of Spring" or our earlier discussion?

SusanR: Thanks Bill!

SusanR: Amazing photos

KyteriaR: No every thing was interesting

DeborahLS: did you have to hang onto that warbler for awhile before figuring out how to "age" it?

BillHi: Kyteria, to answer your earlier question, I think you just challenge the 4th graders to think about the concept and consistently model the right way to think about nature.

BillHi: That includes asking questions in the "right" way.

BillHi: Deborah, counting photo and banding time, I probably had it about 15 minutes. Normally it's less than five.

KyteriaR: yes, I guess I could probably ask them a question and create a k w l chart about humming birds

BillHi: What kind of chart?

KyteriaR: k w l

BillHi: That's what i asked.

SusanSi: beautiful pictures! Thanks--I enjoyed the discussion

BillHi: Thanks, Susan Si.

DeborahLS: Already Know, Want or Expect to Learn, What I learned

SusanSi: (it's know, want to know, learned

SusanR: This is the chart, Bill! <http://www.graphic.org/kwhl.html>

BillHi: There's a new photo essay every week. You can subscribe by following the instructions at the end of this week's installment.

SusanSi: ok!

KyteriaR: it is like a chart in which you ask the students what they know about a topic which is the K. The W stands for what the students want to know , and L is what the students learned.

BillHi: Gotcha. Thanks for the link.

KyteriaR: thank you

DeborahLS: Bill, during the videoconference I had today, we saw a picture of a woodpecker's tongue extended from its beak. Do hummingbirds have long tongues, too?

BillHi: Yes, they do, and similar in structure to the woodpecker tongue. See

<http://www.hiltonpond.org/ThisWeek030308.html>

BillHi: I hope the videoconference didn't steal this photo from my Web site.

DeborahLS: I think they did. Looks VERY similar to what we saw today.

DeborahLS: It was the first and the third pictures. The first graders went wild when they saw it.

BillHi: So they used TWO of my photos?

DeborahLS: Yep. We saw both. My school had 2 conferences today with them -- I saw the photos both times. My district had a third hook-up which I didn't participate in.

BillHi: Very interesting

BillHi: I don't suppose they gave a photo credit, did they?

DeborahLS: I'm not positive, but I believe he referred to their "video gallery." I would have remembered your name if I had heard it. It was that second photo -- with the tongue extended that made me "think" of you today when I saw it.

BillHi: Amazing. (Thanks of thinking of me. Perhaps we're psychic.)

BillHi: Deborah, are your schools Windows-based or Mac-based?

DeborahLS: I'll let my first grade teachers know tomorrow -- I'll ask them to visit <http://www.hiltonpond.org> and send it out to the other instructional technologists in the district. We're Windows-based.

BillHi: If you like we can discuss a way to set up a video chat about hummingbirds. Contact me at <mailto:education@hiltonpond.org>.

BillHi: Same goes for anyone else, too.

BJ waves goodnight. Thanks, Bill. Another thought provoking discussion!

DeborahLS: I'll keep it in mind for next year (last week of school coming up here). I think it'd be fun!

DeborahLS: Thanks again, Bill.