

Title of Session: Nuts About Nature - Flyin' Thangs!

Moderator: Bill Hilton Jr.

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BJB2: Welcome to Nuts About Nature. Tonight's topic is Flyin' Thangs

BJB2: we usually start the discussions with introductions

BJB2: please tell us where you are located and what brings you to the discussion

BJB2: I'm an art teacher in Pennsylvania and I'm nuts about nature

SusanSi: teacher-4th grade science & math N. Texas

BillHi: How far north?

DavidWe: I help teachers learn more about technology and how to use it in education. I'm usually somewhere between Philadelphia and New York City

PaulK joined the room.

BJB2: Hi, Paul. Welcome. We're just doing introductions

SusanSi: NE actually

BillHi: Oklahoma?

PaulK: third grade teacher from Milwaukee

BillHi: Paul, you teach all subjects?

SusanSi: NE Texas here

BillHi: Okay

DavidWe smiles

BillHi: Paul?

RenataS joined the room.

BJB2: Hi, Renata. Welcome. We're just doing introductions

RenataS: hello hello

RenataS: Renata from Japan

PaulK: Sorry yes all

BillHi: Thanks, Paul.

BillHi: Renata, are you a teacher?

DavidWe wonders what Bill had planned for this evening

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 about 20 years and also travel the country giving talks about natural history topics and doing inservice and preservice teacher training.

BillHi: "Nuts About Nature" is a discussion aimed at helping teachers (and future teachers) use the out-of-doors--either for real or virtually--to excite students about learning science and other disciplines.

BillHi: Each month I select a topic for discussion that is intended to make you think and, in the end, to give you some ideas for implementing activities with your current (or future) students.

BillHi: Try to stay on-topic during the discussion so we can get to a meaningful end-point during our hour together.

BillHi: Thanks, first, to BJ for facilitating as always. BJ has been crowned the "Queen of Multitasking."

BJB2 puts on her thinking cap

BillHi: BJ does everything at once. And very well.

PaulK: I wasn't planning on thinking tonight

DavidWe: Welcome to Tapped In, Paul!

BillHi: Better sign out then. (-:

PaulK: Ugh lol

BillHi: Tonight's topic--and it MUST be written this way--is "Flyin' Thangs."

BillHi: Being from NE Texas, Susan will understand the "Thangs" part, 'cause that's the way we talk in the South (and Southwest).

SusanSi: true!

BillHi: So here's my lead question, and I'd like the old folks to hold off a bit in responding.

BJB2: welcome, Susan. We're just getting started on the discussion of Flyin' Thangs

BillHi: Think of all the thangs you can--besides humans and their machines.

DavidWe . o O (thinks)

BillHi: THINK of all the things you can--besides humans and their machines--that can fly.

BillHi: Now think about the LARGEST groups into which you can place them.

BillHi: Hint. Think along lines of biological classification.

BillHi: Now that you've had a LOT of think time, somebody offer the LARGEST group of flying things you thought of.

BJB2: insects

BillHi: Next.

BillHi: ?

SusanSi: birds

BillHi: Next?

BillHi: (-:

BJB2: mammals

BillHi: BJ, haven't I taught you to sit on your hands?

BJB2 sits on her hands

BillHi: Too late again.

BJB2 goes to sit in the corner again!

BillHi: Okay, I think we have the three big groups . . .

BillHi: AND we have them in order!

BillHi: Applause.

BillHi: Of all the flying organisms in the world, the vast majority are insects.

BillHi: Not all insects fly, of course,

DavidWe . o O (flies)

BillHi: But there are so many of them they take the prize.

BillHi: Time flies like an arrow; fruit flies like a banana.

BillHi: (Groucho Marx)

DavidWe nods

DavidWe smiles

BillHi: The next biggest group is birds.

BillHi: Although millions of species of insects can fly

BillHi: There are only about 8,000 bird species worldwide, and some of them CAN'T fly.

BillHi: And then there are the mammals.

BillHi: Next question (respond at will).

KeithMo: like us

BillHi: What is the biggest group of mammals that can fly?

BillHi: Sorry Keith, we eliminated humans.

SusanSi: bats?

BillHi: Good, Susan.

BillHi: Bats is correct.

BJB2 cheers for Susan

BillHi: Now what other mammals can fly.

BillHi: Anyone?

SusanR . o O (thinking)

BillHi: Thanks. (-:

BJB2: lots can glide, but can any other mammal fly?

BillHi: Are you teaching this class, or am I?

BJB2 goes back to the corner

SusanR: flying foxes

BillHi: Nice try, but Flying Foxes are bats!

SusanR: The biggest flying mammals in the world are the flying foxes (family Pteropodidae), particularly those living in Southeast Asia.

BillHi: So-called because they have a face that is rather fox-like.

BillHi: I see Susan has been cheating again by doing a Web search instead of thinking.

BillHi: (You didn't REALLY know that, did you Susan?)

BillHi: Flying Foxes also happen to be fruit bats.

BillHi: ... despite their large teeth. The native North American bats, however, with their tiny teeth--are insectivores.

BillHi: Except for vampires, which take blood meals.

SusanR . o O (thinking)

BillHi: Do any other mammals fly?

BillHi: (No one mentioned Flying Squirrels.)

SusanR: that's it flying squirrels!

BillHi: Hah! Got you again.

BillHi: BJ was right earlier.

BillHi: Flying squirrels don't.

BillHi: They glide.

BillHi: The definition of "Flyin'" is being able to GAIN altitude over a significant distance.

BillHi: Flying Squirrels run up trees, jump off, and glide to a lower level.

BillHi: So they actually lose altitude, which is part of the definition of "Glidin'"

BillHi: So we got Insects, Birds, and Mammals.

BillHi: Are there ANY other major groups of animals that can fly?

BillHi: Anyone?

BillHi: Well, the only other major animal groups are

BillHi: Anyone?

BJB2 raises a hand meekly

BillHi: okay, BJ.

BJB2: reptiles

BillHi: and

BJB2: fish

BillHi: and

SusanSi: amphibians

BillHi: YES!

BJB2 brain is starting to hurt

BillHi: Do any amphibians fly?

BillHi: How about fish?

BillHi: Or reptiles?

BillHi: Anyone?

BJB2: I can't think of any.

BillHi: How about Flying Fish?

BJB2: don't they just glide?

BillHi: Yes, you're getting sharp.

BillHi: How about Manta rays?

JeffC: pterosaurs

BillHi: Manta Rays?

BJB2: they fly through the water...very amazing to watch, but not really flying

BillHi: Do they gain altitude?

BJB2: no

BillHi: Yes, they do.

BJB2: hmmm

BillHi: They're just hydrobatic in water as birds are aerobatic in air.

BJB2: cool!

BillHi: hydrobatic

BillHi: (Just made up that word.)

BJB2: excellent word

BillHi: But usually when we think about flyin' thangs, we mean in air.

JeffC: Rhacophorus... flying java treefrog:

<http://www.livingunderworld.org/anura/database/rhacophoridae/rhacophorus/reinwardtii/>

BillHi: So don't put "Manta Ray" down as a test answer; someone else would probably mark it wrong.

BillHi: Jeff is cheating.

BillHi: And gliding is not flying.

BillHi: so, there are NO flying amphibians.

BillHi: Back to reptiles.

BillHi: Are there any flying reptiles?

BJB2 wonders if Susan can think of any?

BillHi: Okay, let me ask that differently.

SusanR: pteranadon

BillHi: WERE there any flying reptiles?

JeffC doesn't consider google cheating... there *were* flying reptiles... yes... I already said pterosaur!

BJB2: birds

BillHi: Jeff, you came late to the party. By my definition, it's cheating.

BillHi: Jeff did have it earlier when we were discussing something else.

BJB2: or the ancestors of birds...were they reptiles?

BillHi: The various Pterosaurs apparently could gain altitude, so by definition they could fly.

BillHi: There are several modern lizards and snakes that glide, but none that fly.

BillHi: Now, is this the sort of discussion that you could lead your students through?

BJB2: how much prior knowledge would the students need?

BillHi: I think almost any student above third grade knows the major animal groups.

BJB2: would elementary students know about all the flyin' thangs?

BJB2 nods about animal groups

BillHi: A class full of them would, collectively, just as we did tonight, collectively.

SusanR: would we be able to hold the students' attention for this length of time, Bill

BillHi: It would go a lot faster in person.

SusanR: or would we form jigsaw groupings

BillHi: Anyway, you could tie it in with Halloween.

BillHi: Then you'd have an excuse to talk about BATS!

BJB2: neat idea, Susan

BillHi: <http://www.hiltonpond.org/ThisWeek050908.html>

BillHi: Check out the link I just sent by clicking on it.

BillHi: This is from my Web site for Hilton Pond Center for Piedmont Natural History.

BillHi: Happy Halloween!

BJB2: Susan, I strongly recommend Bill's Hilton Pond Newsletter

BJB2: why are there no flying reptiles, Bill?

BillHi: Ah, a WHY question. That goes over in the Philosophy Group, too.

SusanR: btw this discussion reminds me of the series "House"...

<http://www.fox.com/house/>

SusanR: same type of questioning and thinking

BillHi: Nothing better than the Socratic Method.

BJB2 agrees.

BillHi: Good doctors make good teachers make good doctors.

JeffC: because the feathers slide off?

SusanR: worth watching

BJB2 wonders if it takes too much energy to fly?

SusanSi: I love house!

BillHi: Reptile bones are very dense.

BJB2: Thanks for leading the discussion, Bill. As always, a learning experience!

SusanSi: thanks

BillHi: Their genes took them down a different path to survival.

SusanR: Thanks again

BillHi: Don't forget: Hilton Pond Center for Piedmont Natural History is at <http://www.hiltonpond.org>

JeffC: there are pythons in the everglades now... saw a picture of one that ate an alligator...

BillHi: That was an interesting story.

BillHi: Goodnight, everyone. See you next month for Nuts About Nature.

BillHi: Same time, same place.

JeffC: I'm not sure how the pythons made it into the everglades... but they say it's wreaking havoc with the ecosystem.

BillHi: Pet owners let them loose.