

Title of Session: Nuts About Nature - Two Deers Before the Mast

Moderator: Bill Hilton Jr.

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Room: Tree House Conference Room

BJ: Welcome to tonight's Nuts About Nature Discussion

BJ: Bill's topic is Two Deers Before the Mast and I'm dying to find out what goodies he's going to be discussing!

BJ: let's start with introductions so Bill has an idea of who is here

TracyLM: Hello everyone.

BJ: I'm an art teacher in Pennsylvania and a big fan of Bills

TracyLM: I am a preservice teacher at the University of Houston

KristenFS: hello-my name is Kristen and I am a preservice teacher at University of Houston for middle school science

AimeeF: I am a preservice teacher at the University of Houston

TracyLM: Early childhood, myself.

ElizabetS2: Hi! My name is Elizabeth Salisbury. I am a research assistant and I am working on getting my teachers certification from the University of Houston.

AimeeF: me too, Tracy

AshleyNT: My name is Ashley and I am a preservice teacher at the University of Houston....I start student teaching next year and will graduate in May

AllisonHu: I'm Allison from the University of Houston studying grades 4-8 with a focus on English/Lang. Arts. I'll get my Masters Degree in Instructional Technology. I graduate in May 2005. And I'm addicted to mashed potatoes.

SusanMay: I'm a fourth grade teacher in Virginia. I've never participated in a discussion before.

TianaV: preservice teacher at UH science 4-8

NickGst16: I just a curious bystander from NIU

FrancisGst17: Hi I'm new here and I want to know what's going on here

AimeeF is Early Childhood also

JessamineC: Hi, my name is Jessamine Cooke-Plagwitz and I am a professor of German and Instructional Technology for FL educators at Northern Illinois University

AllisonHu: Hey I have something in common with Jessamine: Instructional Tech.

RobinLe: Hi, I am Robin, pre service teacher at the University of Houston

RobinLe: Science

JessamineC: excellent!

BJ: what a wonderful group, Bill. Are you about ready to start?

BillHi: Any more intros?

BJ . o O (Julia?)

BJ: you're in the right place, Julia. Can you tell us where you are and if/what you teach?

BillHi: Please let the moderator respond to these kinds of questions.

JuliaMP: I am a University of Houston student. I want to teach K-4th

BillHi: Introductions, please?

TianaV: yes, I'm a preservice teacher at U Houston - science 4-8

MarthaBR: Hi, again, I am Martha and I am Univ. of Houston pre-service teacher.

BillHi: Okay, let's roll.

BillHi: Thanks, first, to BJ for facilitating as always.

JuliaMP: I'm a pre-service teacher. Hi everyone.

XanaG: hi I am a preservice teacher at the University of Houston

BillHi: I'm Bill Hilton Jr., executive director of Hilton Pond Center for Piedmont Natural History in York, South Carolina. Nice to see the Houston folks as usual, and to welcome others from elsewhere.

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 using the out-of-doors--either for real or virtually--to excite their 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: Please hold the conversational chatter. This is, after all, an on-line classroom.

BillHi: Tonight's topic is "Two Deers Before the Mast," which is a sort of nature pun. For you to understand it I need to ask if anyone knows what the title is paraphrasing (not what it means).

BillHi: Anyone?

BJ raises her hand

MarthaBR: I am clueless

BillHi: Bill ignores BJ for the moment.

TracyLM: I need a little help...

KristenFS: ???

BJ smirks and sits on her hands

JuliaMP: I don't know.

AshleyNT: I have no clue

TracyLM: I am sure we are going to feel pretty stupid when you tell us.

XanaG: not sure

BillHi: Ah, just as I thought. Your high school English teacher (and college American Lit professor) have let you down.

BillHi: BJ?

BJ: Two Days Before the Mast...

BillHi: No, you blew it.

BillHi: It's "Two Years Before the Mast."

BJ: oh, shoot...I did know that!

KristenFS: lol

BJ . o O (years and deers....silly me)

JuliaMP: neat

BillHi: Yes, BJ, it's part of the pun. It's a book by Richard Henry Dana Jr. (1815-1882).

BillHi: "Two Years Before the Mast" tells the story of Henry Dana's 12 months as a sailor during a journey from America's East Coast to the distant land of California via Cape Horn.

JessamineC: I don't feel too badly - I never studied American lit!

BillHi: This tale is a fascinating insight into the life of a sailor on a merchant ship--the incredible hardships to be endured and moments of joy such rounding Cape Horn and heading for home in a good wind with all sails set.

BillHi: Dana also describes everyday relationships between crew and officers and provides a picture of California before the gold rush--a wild uninhabited place more Spanish than American, with vast unspoiled stretches of coasts dotted by small settlements with familiar names such as San Francisco and San Diego.

BillHi: And now that you know all this, I must admit that it has nothing to do with tonight's topic. (-:

BillHi: But it is part of the pun.

BJ . o O (sounds like a good book to use for history and science)

BillHi: In tonight's topic of "Two Deers Before the Mast" what dos the word "mast" mean?

BillHi: Anyone?

BillHi: (Hint. It has nothing to do with a ship's mast.)

BJ: tree? But that would have something to do with a ship's mast

AllisonHu: nuts of forest trees

JuliaMP: survival?

BillHi: Allison, how did you come up with that answer?

AllisonHu grins

BillHi: Well?

AllisonHu: I looked it up

BillHi: I knew that just by looking at you.

AllisonHu: Yahoo dictionary is a good friend of mine

BJ cheers for Allison...good job!

BillHi: Nah, she's cheating.

AllisonHu: thanks BJ

BillHi: Internetly.

AimeeF: oh that's actually a meaning for "mast???"

KristenFS: good job Allison--I looked too

BJ laughs..at least it was intelligent cheating

AshleyNT: awesome

JuliaMP: I did not think of that.

MarthaBR: learn something new everyday.

KristenFS: dictionary.com

BillHi: Yes, you're all resourceful, but the bad part about on-line looking is that it doesn't give everyone else time to think.

XanaG: true

BJ nods solemnly

BillHi: And it also makes it hard for me to use the Socratic method. (-:

BJ goes and sits in the corner

AllisonHu: I could've lied and said I knew it....at least told the truth

BillHi: So, Allison, you should feel both good and bad at the same time. (How's that for making you schizophrenic!)

BillHi: Anyway, Allison is mostly correct.

BillHi: Correct.

BillHi: In the world of nature, "mast" is a word that refers to the nuts and berries that are produced by trees and shrubs and that, for the most part, fall to the forest floor.

JuliaMP: oh!

AimeeF: interesting, I have never heard that

TracyLM: ahh...

BillHi: So what happens to the nuts and berries?

AshleyNT: the only mast I have ever heard of was on a ship

AshleyNT: Deer eat them

TracyLM: They are eaten

KristenFS: they get eaten

ElizabetS2: the nuts and berries are eaten

KristenFS: eaten

JuliaMP: Dinner.

AllisonHu: they get planted and grow more

TianaV: they are replanted by animals

TianaV: through animals

RobinLe: eaten or replanted

BillHi: So, the role of trees and shrubs is to produce food for animals?

AllisonHu: and provide shelter and shade

BillHi: That was the first response from the majority.

TianaV: yes

XanaG: it's a cycle

BJ shakes her head

JuliaMP: trees produce oxygen animals carbon dioxide

AimeeF: so trees and shrubs serve many purposes, actually

AshleyNT: very true

BillHi: Let me ask again. Do trees and shrubs make berries and nuts to feed animals?

JessamineC: that's not their original purpose

AshleyNT: no

TianaV: no, they do it to reproduce

TracyLM: only to feed animals...no

KristenFS: that may be one of their functions

JessamineC: but that's what often happens to them

ElizabetS2: no, they make them to reproduce

MarthaBR: no they do it to reproduce.

SusanMay: They make them to reproduce themselves.

AimeeF: no, they're seeds

AimeeF: yes, to reproduce

XanaG: no

JuliaMP: trees/shrubs produce to make more trees and shrubs

BillHi: Well stated, Julia.

RobinLe: no they make berries and nuts to reproduce I think

BillHi: The LAST thing most trees and shrubs want is for some critter to eat their berries or nuts.

AimeeF: ahhh

AshleyNT: that's probably true

BillHi: Of course. I wouldn't lie to you. (-:

BillHi: But let me make a slightly more accurate statement.

BJ smiles

BillHi: Most trees that make nuts do NOT want an animal to eat the nut, while most that make berries DO want the berry to be eaten. Can you explain this?

JessamineC: well . . .

JessamineC: it's not pretty . . .

BillHi: Well?

KristenFS: fertilizer

JessamineC: but birds eat berries

JuliaMP: are the seeds in the berries?

JessamineC: fly away

TianaV: because when it passes through the animal, the berry is replanted through feces

SusanMay: The ability to reproduce is destroyed if a nut is eaten but not if a berry is eaten

KristenFS: better way of putting it

JessamineC: she put that much better than I would have . . .

ElizabetS2: nuts have their own source of nourishment and can survive and regrow on their own but the berries need to be eaten to reproduce

BillHi: Susan may is going in the right direction.

MarthaBR: berries are replanted after they pass through the animal that ate it.

AshleyNT: Berries seeds are on the inside of the berry therefore they need to be broken open to make more berry bushes??

BillHi: Let's insert human feeding habits into the discussion.

BillHi: If you eat a walnut, what is left?

TracyLM: ok

AshleyNT: the shell

TracyLM: the shell

AimeeF: the seed from the inside remains after it's eaten

AimeeF: oops

XanaG: shell

BillHi: Good.

JuliaMP: the shell, if you shell them yourself

BillHi: If you eat a cherry, what remains?

AimeeF: the pit

XanaG: seed

AshleyNT: the seed

TracyLM: the seed

KristenFS: pit

ElizabetS2: the pit! ah

AimeeF: or seed

MarthaBR: the pit.

JuliaMP: ahh

BillHi: Good.

BillHi: So who wants its fruit eaten by an animal?

AllisonHu: a good feeling in my mouth

AshleyNT: trees and bushes

BillHi: By who I mean what kind of tree.

TracyLM: the cherry tree

JuliaMP: a fruit tree

AshleyNT: cherry tree

ElizabethS2: apple, cherry

TracyLM: or lemon tree

BillHi: Stick with the cherry.

AimeeF: oh that's true, think of like citrus trees... the seeds are there, but they're not coming out unless somebody eats the fruit

KristenFS: any trees with fruits

XanaG: trees with seeds inside the fruit

BillHi: Actually, nuts ARE fruits. (-:

AshleyNT: good to know

JuliaMP: I did not know that-wow

TracyLM: didn't know that

KristenFS: how do they have the components of fruit

BillHi: Okay, so--based on our earlier comments--what kind of tree would NOT want to have its fruit eaten by an animal?

AshleyNT: pecan tree

AimeeF: oak

TracyLM: pecan

BillHi: (Actually, I said walnut.)

ElizabethS2: walnut, pecan

JuliaMP: walnut

AshleyNT: walnut tree

BillHi: Good.

JuliaMP: yea

BillHi: Let me respond to a question here.

BillHi: Fruit, by definition, is a seed, berry, nut, etc., that is a reproductive agent for an organism.

KristenFS: ok

JuliaMP: yes

BillHi: So that includes the cherry (for which the pit itself is really the fruit) or the walnut.

BillHi: That being the case, what's the function of all that stuff surrounding the cherry pit?

AshleyNT: protection?

TianaV: to tempt a critter

MarthaBR: protection?

XanaG: to protect it

AimeeF: to nourish the pit

JuliaMa: attract the animal?

ElizabethS2: it's the nutrients that sustains the part that is growing

TracyLM: to attract critters

JuliaMP: it protects the seed

MarthaBR: and attracts

AllisonHu: I thought it was to attract

AimeeF: maybe both?

AimeeF: or all three, rather?

BillHi: The pulp of the cherry really has very little value for the seed itself. It decomposes long before the pit germinates.

KristenFS: protection and attraction

BillHi: There IS nutritive material inside the cherry pit that feeds the embryo until it sprouts.

BillHi: So those of you who say "to attract critters" seem to be correct.

TianaV: cool

JuliaMP: I did not know that -neat

KristenFS: ok

XanaG: okay

TracyLM: pats herself on the back

KristenFS: nice to know

BillHi: And, as a couple of you mentioned long ago, when the critter eats the cherry
(finish the sentence).

TracyLM: the cherry is dispersed through fecal matter into the soil

AimeeF: so that IS a part of it

AimeeF: lovely thought, but necessary, I guess

BillHi: Nicely stated, Tracy. (You said "fecal matter" instead of "poop.")

AshleyNT: b/c the seed comes back out

KristenFS: and is replanted to make a new tree

TracyLM: Tracy smiles

KristenFS: or trees

BillHi: Yes, and having the seed pass through while the cherry pit gets digested is pretty important.

BillHi: Ooops, I should have said when the pulp gets digested.

JuliaMP: so trees and animals need each other-partners in nature.

AshleyNT: yeah

BillHi: Well, let's not go there yet.

BillHi: What function does the animal REALLY serve for the tree.

BillHi: the cherry tree, that is.

TianaV: distribution

TracyLM: does the digestion process remove the coating on the seed?

XanaG: it exposes and fertilizes the seed?

JuliaMa: facilitator, disseminator

BillHi: You got it already, Tiana.

BillHi: Good. The animal is usually an agent for dispersal.

JuliaMP: neat

BillHi: And that's pretty important.

AllisonHu: That's right...learned that in Environmental Ed.

MarthaBR: that's what I meant to say.

BillHi: Cherries drop beneath the tree, and if they all stayed there they'd be competing with their mother for space and nourishment.

JuliaMa: ahh..

TracyLM: Ahhhh

KristenFS: makes sense

TracyLM: get it now...

MarthaBR: interesting.

XanaG: okay I see

JuliaMP: oh

JuliaMa: but what about walnut? the seeds won't compete?

BillHi: And, as someone has suggested, in some plants the seed is fertilized by being expelled with the fecal matter, and in others the seed coat is worn away by animal digestive juices so it can sprout.

BillHi: Okay, Julia, we're coming back to the walnut.

JuliaMa -)

BillHi: Does a walnut want its seeds eaten by an animal?

BillHi: Chorus

AshleyNT: no

TracyLM: no

JuliaMa: no cause it will be destroyed

JuliaMP: no way

JuliaMa: the seed

TianaV: uh no

SusanMay: No that is why the shell is so hard

XanaG: no

MarthaBR: no

ElizabetS2: no

AllisonHu: no

BillHi: Interesting, isn't it, that a cherry is bright red and juicy, while a walnut hides inside a husk and a hard shell.

TracyLM: not interesting, survival

AshleyNT: true

BillHi: Slap my hand.

JuliaMP: great thinking

AimeeF: but then how does it reproduce if it's in that hard shell?

BillHi: Ah, Aimee. that's where we're going.

JuliaMP: Do animals step on them may be?

AimeeF: good good good

JuliaMa: the sprout is amazingly strong?

BillHi: Let's think of another nut that's more common in the wild than walnuts.

TracyLM: pecan

AimeeF: pine nut?

AimeeF: lol

AimeeF: doesn't know

KristenFS: pecans
BJ . o O (acorns)
BillHi: Pines don't really make nuts.
BillHi: BJ!
MarthaBR: acorns?
AshleyNT: acorns
BillHi: Yes, acorns.
TracyLM: I've got a yard full of acorns and pecans
BillHi: Acorns come from what kinds of trees?
JuliaMP: They're everywhere
TracyLM: oak?
ElizabethS2: oak I think
AimeeF: yes, oak
XanaG: oak
MarthaBR: oak trees?
BillHi: Yes, oak.
AshleyNT: oak
BillHi: Oak trees are much more widely distributed than walnuts or pecans, so let's talk about acorns.
TracyLM: ok
JuliaMP: sure
BillHi: Acorns actually make up MUCH of the mast crop across the U.S. and Canada.
AimeeF: oh wow
BillHi: What eats 'em?
AimeeF: squirrels
TracyLM: squirrels
TianaV: birds
MarthaBR: squirrels
JuliaMa: squirrel
SusanMay: Suirrels
BillHi: And?
AshleyNT: squirrels
SusanMay: Chipmunks, Deer
AshleyNT: deer
TianaV: deer
TracyLM: deer
MarthaBR: deer
XanaG: lots
KristenFS: I will have to agree with deer
BillHi: How about "Two Deers Before the Mast"?
AllisonHu: ahhhh
KristenFS: ohhhhh
TracyLM: drums
JuliaMP: oh neat
XanaG: okay...
BillHi: Gotcha!!

AimeeF: ah ha!! =)
AllisonHu : o O (wow, clever!)
MarthaBR: cool
AshleyNT: awesome
XanaG: neat
BillHi: And, by the way, bears eat a lot of mast.
AshleyNT: true
JuliaMP: Oh
BillHi: What do you think happens when acorns are eaten by birds or deer or bears or squirrels.
MarthaBR: dispersal. More oak trees
TracyLM: distribution of the seeds for growth of new oak trees
AshleyNT: same as the berries?
BillHi: Wrong, folks.
BJ : o O (the deer get fat)
AimeeF: uh oh
TracyLM: frowns
AllisonHu: hehe
AimeeF: maybe that happens so there won't be TOO MANY trees
XanaG: I thought they didn't want to be eaten
BillHi: Bears and deer have big molars that grind the acorns into pulp.
AshleyNT: it cracks opens the shell
MarthaBR: Oh, I see.
TracyLM: oops...
BillHi: Birds swallow the acorns whole and they get ground up in the gizzard.
XanaG: okay...
JuliaMP: so they do not become new trees.
BillHi: Squirrels nibble the acorns into nothingness.
BillHi: If an acorn is eaten, it's curtains for that particular embryo.
AimeeF: okay
AimeeF: I was about to ask that
TracyLM: ok
AimeeF: so it's only the ones that are left alone that reproduce
JuliaMP: ahhh
BillHi: So how do oak trees EVER reproduce?
KristenFS: animals stepping on them
AimeeF: I think the acorns are SO plentiful
KristenFS: to crack them open
JuliaMP: Is that why the trees produce so many of them?
BillHi: Nope. that would expose the embryo and kill it.
TianaV: wind
AimeeF: that they couldn't' possibly all be eaten!
MarthaBR: I don't know.
BillHi: Too heavy for wind.
BJ: squirrels bury them
BillHi: Aimee's right, but there's more.

KristenFS: buried in the ground
BillHi: By whom?
KristenFS: by squirrels
BJ . o O (and chipmunks)
KristenFS: oops
TracyLM: squirrels
RobinLe: the animals can bury them
BillHi: And Blue jays.
JuliaMP: squirrels
AshleyNT: bears
AshleyNT: deer
AimeeF: oh birds???
KristenFS: any animal that buries them
BillHi: Not by bears or deer.
XanaG: squirrels
RobinLe: why not bears and deer
SteveLM joined the room.
BillHi: Okay. We're almost out of time, but I'll bet you could create some dynamite lessons out of this discussion.
KristenFS: they don't bury them?
XanaG: they don't bury them
AimeeF: Bill, this is actually on a topic we have been talking about
MarthaBR: I will use it for a lesson plan
BillHi: For the moment, let's take a quick look at <http://www.hiltonpond.org/ThisWeek040101.html>
AimeeF: living things and how they ALL need each other for one thing or another!
BillHi: Just click on the URL.
TracyLM: got it
BillHi: This is my Web site for Hilton Pond Center for Piedmont Natural History. This particular essay is about White-tailed deer.
BillHi: I post a new one every week, so bookmark the site at <http://www.hiltonpond.org> and come back and visit often.
BJ . o O (the photos are incredible)
TracyLM: ok
BillHi: Comments?
XanaG: it looks very informative
AllisonHu: Cool
MarthaBR: very interesting, Thank You.
JuliaMa: that's interesting. thank you
TracyLM: very informative
RobinLe: I'm still stuck on the bears and deer not burying the acorns
ElizabetS2: great pictures- of both deer and feces, both of which we discussed
KristenFS: how do they bury them with hoofs
KristenFS: (deer)
AimeeF: very interesting bill
BillHi: Deer and bears DON'T bury acorns. They eat them.

BillHi: Aimee, where were you discussing this topic?

BJ applauds wildly for Bill. The next Nuts About Nature discussion is December 14.

AshleyNT: Well Thanks

RobinLe: great discussion anyway

RobinLe: thanks

AimeeF: at school, my partner and I are doing a unit on Living/Nonliving and one of the TEKs includes it

AshleyNT: I did a lesson on that

BillHi: TEKs?

AimeeF: the knowing that living organisms require things from others to live

AshleyNT: first grade

AimeeF: Texas essential knowledge & skills

AimeeF: yeppers, 1st grade

BillHi: Applicable to 10th grade biology?

AimeeF: I don't know about 10th!

BillHi: Of course. It's a universal concept. (-:

ElizabetS2: thank you very much again- informative and intriguing as always!

AimeeF: yeppers!

XanaG: Thanks again ---wonderful information kids will love it

AimeeF: it really is

TracyLM: thanks for the information

AimeeF: I can't believe how relevant it is for me this week!

TracyLM: I truly enjoyed the discussion

AimeeF: I may even add a lesson to my unit!

BillHi: We're psychic, Aimee.

AimeeF: I guess so!!!

AimeeF: well take care ya'll! I will see you again!

BillHi: Please print out that photo of deer feces and hang it in your room. (-:

AimeeF: ewww

BillHi: No. Ahhhhh.

AimeeF: thanks so very much for that visual, Bill

BJ: hmmm...I'll have to think about that one

BJ: time for bed....thanks, again, Bill.

BillHi: BJ, you're the art teacher. Think of the texture.

BJ thinks....

BJ: briefly

BillHi: Okay, folks. See you on the Hilton Pond Web site. Have a good Thanksgiving.

BillHi: And don't eat any acorns.