Exotic and Invasive Alien Species Workshop January 22-23, 2008 Pepsi Centre, Corner Brook, Newfoundland and Labrador

Mushroom BFAs

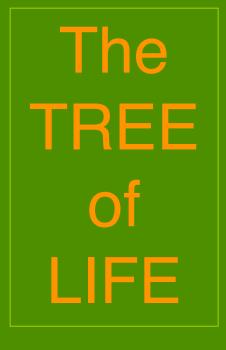


Conocybe filaris



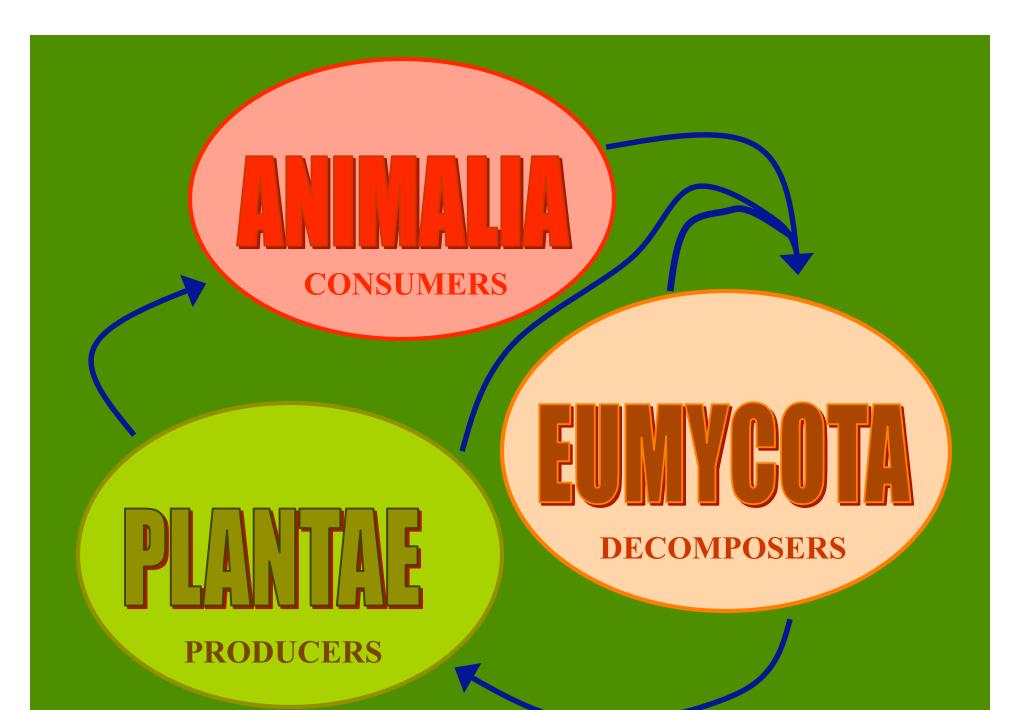
VERY COMMON, introduced from Europe











FORAY ACMITON ADLAND

CURRENT KNOWLEDGE & RESEARCH

Despite their importance, compared to plants and animals we know next to nothing about mushrooms.

We don't even know what species grow here; how can we know if a) something is alien, or

> b) if it is having any effect on the others, most of which are unknown to us?

> > FORAY A LABRADOR

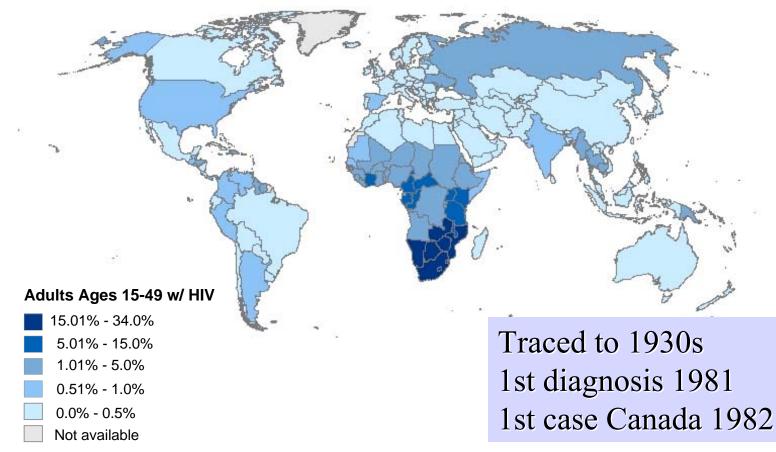
"Research" is primarily trying to determine what species grow here, indeed, what is a species.

SPECTRUM OF ALIENNESS

BFA (brung from away)	Moose	Greed; ignorance Speed, ease transport; Access to information	US
CFA (immigrant)	Coyote	Remote environmental change	THEM
Evolve in situ	Pine martin	Local environmental change	THEM
NATIVE	Arctic hare	Sloth or great insight?	THEM

UN HIV map, 2005

2005 - 24 yrs later

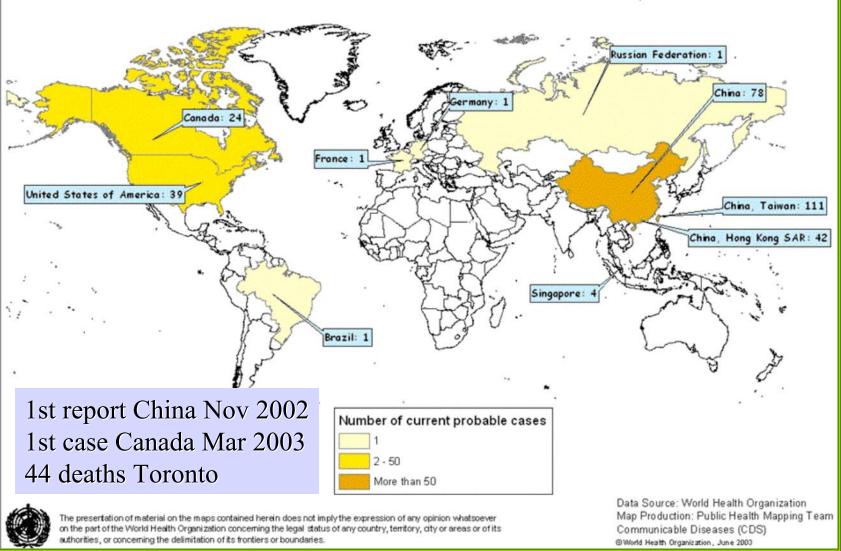


FORAY A LABRADOR



Salvation Army Scarborough Grace Hospital





SARS: Number of Current Probable Cases as of 24 June 2003, 17:00 GMT+2

WHO map: "number of current probable SARS cases" as of 24 June 2003

FORAY MENTOR NDLAND

Lepiota lutea aka *Leucocoprinus birnbaumii*

Common fungal contaminant in gardens and flower pots

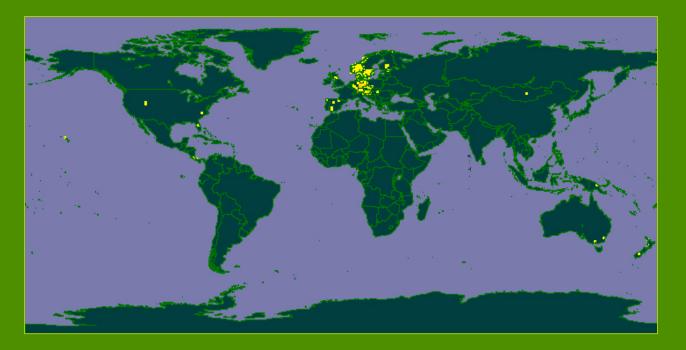
Introduced with soil and plants

Not wild in our climate

Reported wild from continental west coast and southern USA.



Conocybe filaris



European secondary wood decayer thought to have been introduced to North America by wood-based lawn fertilizer. VERY COMMON lawn mushroom in USA and Canada.



Conocybe filaris



A VERY COMMON lawn mushroom in USA, Canada AND Newfoundland and Labrador



SO WHAT?

Not known to destabilize myco- or ecosystem homeostasis

DIRECT HARM

Conocybe filaris causes death to <u>toddlers</u> crawling in grass and <u>youths</u> mistaking it for hallucinogen for recreational purpose.

Last death—18 yr old girl in BC in 2006.



Amanita phalloides





Amanita phalloides

All over continental west coast

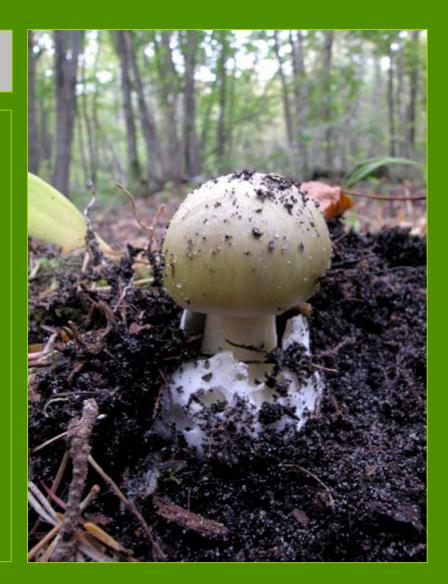
At least 4 eastern states

Introduced with plants, soil

In one place among imported Norway spruce

Possibly in Ontario

Soon in Newfoundland, GUARANTEED!



SO WHAT?

Not known to destabilize myco- or ecosystem homeostasis

DIRECT HARM

Amanita phalloides 2nd commonest cause of death from mushroom poisoning in NA

(A. virosa/bisporigera is #1).





Where did they all come from?







Ganoderma lucidum

Butt rot elsewhere Only decomposer here??? Where did it come from? Was it here? Did it come with young tree?

We don't know.



Conclusions

- 1. We know very little about mushrooms
- 2. If we knew more, suspect we have many aliens
- 3. On the basis of our small knowledge, one alien killer is here
- 4. One alien killer is about to enter
- 5. Importing plants and soil seems to facilitate alien invasion
- 6. We are invasion vector, facilitated by
 - 1. Dissemination of information
 - 2. Ease of transport/travel



Recommendations

- 1. Hire mycologists to conduct research and fill our knowledge gaps.
- 2. If invasion of alien species is not desirable, legislate against import of soil and plants for private, commercial and civil use.
- 3. Use the same information dissemination to educate the public.



Conocybe filaris



VERY COMMON, introduced from Europe



THANK YOU!

Join the foray! Support the foray!



