

Thank you for inviting me!



~~ Share information resources on fire & invasive plants

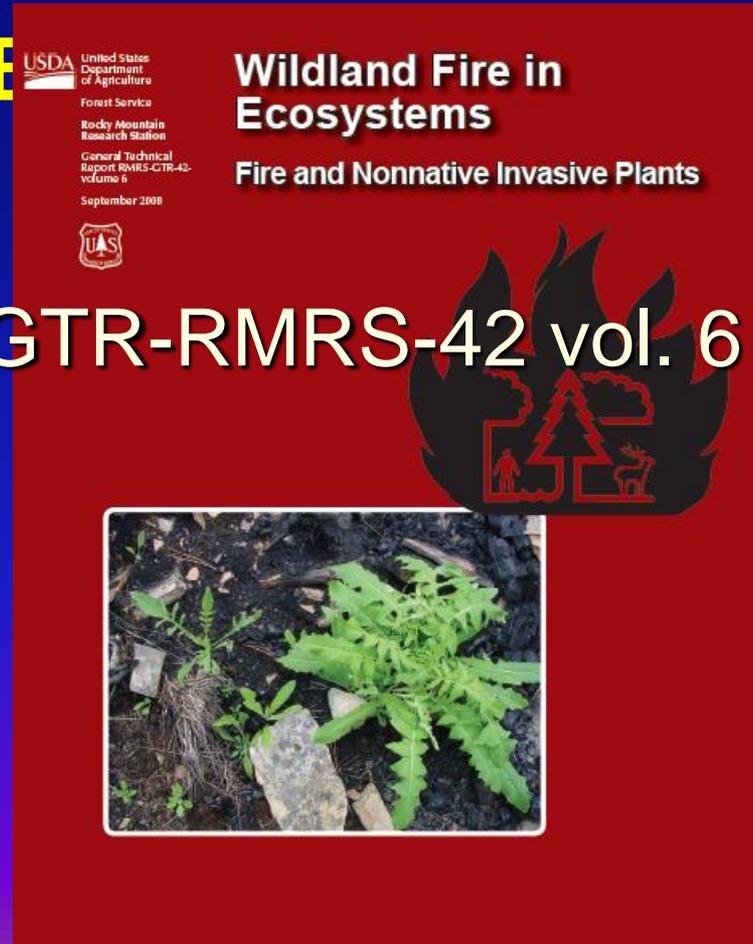
**What is missing for Caribbean FILN?**

~~ Develop project for sharing professional knowledge

~~ Share information resources on fire & invasive plants (1)

## Wildland Fire in Ecosystems Fire and Nonnative

General Technical Report GTR-RMRS-42 vol. 6



~~ Share information resources on fire & invasive plants (1)

## **Wildland Fire in Ecosystems: Fire and Nonnative Invasive Plants**

General Technical Report GTR-RMRS-42 vol. 6

- Concepts: fire effects & management issues
- Chapter 6: Southeastern US

[http://www.fs.fed.us/rm/pubs/rmrs\\_gtr042\\_6.html](http://www.fs.fed.us/rm/pubs/rmrs_gtr042_6.html)

## ~~ Share information resources on fire & invasive plants (2)

### Fire Effects Information System (FEIS)

- Reviews of biology, ecology, fire effects
- >1,100 species (plants & animals)
- ~120 invasive plants

[www.fs.fed.us/database/feis](http://www.fs.fed.us/database/feis)



# Fire Effects Information System

(enter query)

Search

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## FEIS Reviews:

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Search FEIS:

Search

Options

Help

FEIS summarizes and synthesizes research about living organisms in the United States—their biology, ecology, and relationship to fire.

To cite information from a FEIS review, copy and paste the Authorship and Citation section from the INTRODUCTORY page.

Example:

Gucker, Corey. 2009. [Berberis vulgaris](#). In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis> [].

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### Invasive Plants

FEIS provides updated scientific and technical information about interactions between fire and plants. Plants that have been identified as [invasive](#) in at least some locations. Most of the species in this list are native to the United States. These species reviews include as much information as is available

- The role of fire in enabling plant invasions
- Altered fire regimes following plant invasion
- The use of fire to control plant invasions
- Background information on taxonomy, species distribution, basic biology and fire effects

#### **Invasive species summaries:**

- **[FEIS Invasive Plants List](#)**

Because our emphasis is primarily fire, and because FEIS does not include all invasive species, we encourage you to consult other websites for further details about non-native species.

## Invasive Plants List

Abbreviation	Species	Common Name
<a href="#">ACEPLA</a>	Acer platanoides	Norway maple
<a href="#">ACRREP</a>	Acroptilon repens	Russian knapweed
<a href="#">AGRCRI</a>	Aegonvron cristatum	crested wheatgrass
<a href="#">LONJAP</a>	Lonicera japonica	Japanese honeysuckle
<a href="#">LONMAA</a>	Lonicera maackii	Amur honeysuckle
<a href="#">LONMOR</a>	Lonicera morrowii	Morrow's honeysuckle
<a href="#">LONTAT</a>	Lonicera tatarica	Tatarian honeysuckle
<a href="#">LONYLE</a>	Lonicera xylosteum	European fly honeysuckle
<a href="#">LYGJAP</a>	Lygodium japonicum	Japanese climbing fern
<a href="#">LYGMIC</a>	Lygodium microphyllum	Old World climbing fern
<a href="#">LYTSAL</a>	Lythrum salicaria	purple loosestrife
<a href="#">MEDSAT</a>	Medicago sativa	alfalfa
<a href="#">MELQUI</a>	Melaleuca quinquenervia	melaleuca
<a href="#">MELALB</a>	Melilotus alba	white sweetclover
<a href="#">MELOFF</a>	Melilotus officinalis	yellow sweetclover
<a href="#">MELMIN</a>	Melinis minutiflora	molasses grass
<a href="#">MICVIM</a>	Microstegium vimineum	Japanese siltgrass

SPECIES: *Lygodium japonicum*, L. n

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SPECIES: *Lygodium japonicum*, L. *microphyllum*

- [IMMEDIATE FIRE EFFECT ON PLANT](#)
- [DISCUSSION AND QUALIFICATION OF FIRE EFFECT](#)
- [PLANT RESPONSE TO FIRE](#)
- [DISCUSSION AND QUALIFICATION OF PLANT RESPONSE](#)
- [FIRE MANAGEMENT CONSIDERATIONS](#)

## IMMEDIATE FIRE EFFECT ON PLANT:

As of this writing (2005) there are no published studies documenting the effects of fire on climbing ferns. Anecdotal accounts suggest that climbing fern fronds will burn (see Fire Management Considerations below), and to the extent that plant tissues are consumed or damaged, may be top-killed. Studies are needed that document and assess the effects of fire on climbing ferns.

## DISCUSSION AND QUALIFICATION OF FIRE EFFECT:

No additional information is available on this topic.

## PLANT RESPONSE TO FIRE:

As of this writing (2005) published studies describing post-fire responses of climbing ferns are sparse. Stocker and others [37] noted that Old World climbing fern has some indication that Old World climbing fern (tissue damaged by frost, herbicide, or mechanical damage documented, it is likely that climbing ferns may

SPECIES: *Lygodium japonicum*, L. *microphyllum*

- [GENERAL BOTANICAL CHARACTERISTICS](#)
- [RAUNKIAER LIFE FORM](#)
- [REGENERATION PROCESSES](#)
- [SITE CHARACTERISTICS](#)
- [SUCCESSIONAL STATUS](#)
- [SEASONAL DEVELOPMENT](#)

## GENERAL BOTANICAL CHARACTERISTICS:

This description provides characteristics that may be relevant to fire ecology, and is not meant for identification. Keys for identification are available (e.g. [28,44,45]).

Japanese climbing fern fronds are from 3.3 to 100 feet (1-30.5 m) in length [1,3,28], and Old World climbing fern fronds grow to 90 feet (27 m) long [16]. In Japanese climbing ferns, pinnae (groups of leaflets) are up to 12 inches (30 cm) wide, and are subdivided into 2 or 3 pinnules (leaflets) up to 3 inches (8 cm) long and 6 inches (15 cm) wide [28,29]. Old World climbing fern pinnae are 2 to 5 inches (5-13 cm) long with several pairs of pinnules with tiny lobes of enrolled leaf tissue along the edge. In Old World climbing fern, the reproductive [sporangia](#) are borne on narrow,

Old World climbing fern



©Mandy Tu/The Nature Conservancy

[37]. Stocker, Randall K.; Ferriter, Amy; Thayer, Dan; Rock, Michael; Smith, Steve. 1997. Old World climbing fern hitting South Florida below the belt. *Wildland Weeds*. (Winter): 6-10. [55556]

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Lygodium

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sci	com	FEIS yr
Albizia lebeck	woman's tongue	A. julibrissin, 2009
Casuarina equisetifolia	sheoak	1992
Cupressus arizonica	Arizona cypress	1993
Cytisus scoparius	Scotch broom	2006
Echinochloa crus-galli	barnyard grass	1994
Eleaegnus umbellata	autumn-olive	2003
Fragaria vesca	wild strawberry	2007
Holcus lanatus	common velvetgrass	2009
Imperata cylindrica	cogon grass	2005
Lonicera japonica	Japanese honeysuckle	2002
Lygodium microphyllum	Old World climbing fern	2005
Melaleuca quinquenervia	melaleuca	2005
Melinis minutiflora	molasses grass	2008
Melinis repens	Natal grass	soon
Paulownia tomentosa	princesstree	2009
Pennisetum ciliare	buffelgrass	2008
Pteridium aquilinum?	bracken fern	1990
Pueraria montana var. lobata	kudzu	2002
Rumex acetosella	sheep sorrel	1995
Schinus terebinthifolius	Brazilian pepper	2006
Sorghum halapense	Johnson grass	2004
Spartium junceum	Spanish broom	2006
Trifolium repens	white clover	1993 & soon
Verbascum thapsus	mullein	2008

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Japanese climbing fern

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be affected by fire ecology, and is not meant for identification.

Old World climbing fern fronds, pinnae (groups of leaflets) are up to 12 inches (30 cm) long and 3 inches (8 cm) wide. New World climbing fern fronds (5-13 cm) long with several pairs of pinnules with tiny lobes of enrolled leaf tissue along the margin. Old World climbing fern [sporangia](#) are borne on narrow,

Old World climbing fern



©Mandy Tu/The Nature Conservancy

[37]. Stocker, Randall K.; Ferriter, Amy; Thayer, Dan; Rock, Michael; Smith, Steve. 1997. Old World climbing fern hitting South Florida below the belt. *Wildland Weeds*. (Winter): 6-10. [55556]

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# ~~ Share information resources on fire & invasive plants (3)

## Citation Retrieval System for FEIS

- Citations only (no downloadable documents)
- 60,000+ references
- Detailed keywords

(Download pdf file with spp keywords)

[feis-crs.org](http://feis-crs.org)

## ~~ Share information resources on fire & invasive plants (4)

### Tall Timbers Library

- Citations only (no downloadable documents??)
- ~20,000 references??
- May have more than CRS on Caribbean spp
- Detailed keywords  
(Use sp scientific name)

[www.talltimbers.org/fedb-intro.html](http://www.talltimbers.org/fedb-intro.html)

~~ Share information resources on fire & invasive plants

**What is missing for Caribbean FILN?**

~~ Develop project for sharing professional knowledge



## ~~ Develop project for sharing professional knowledge

- How can we share information through FEIS?
- What information is most important?

Search FEIS for Schinus  
terebinthifolius

Or... Demonstration  
(“Dummy”) file



**Professional knowledge:**

**What do we know?**

**That is, what have we observed?**

**“Dummy” topics:**

Distribution & Site Requirements

Impacts

Biology and Ecology

Fuel Properties

Responses to Fire

Control

### **Distribution and Site Requirements:**

Where have you found this species?

Where does it have the greatest impacts?

What conditions favor its establishment, persistence, and spread?

### **Impacts:**

How does the species affect the desired plant and animal community?

### **Biology and Ecology:**

What do we know about ...

life form

life history

regeneration

Is it sensitive to environmental conditions?

heat & cold, drought & flooding, salt, soil conditions, light & shade

How does it respond to disturbances?

### **Fuel Properties:**

Does it change fuels in invaded communities?

amount, spatial arrangement, or seasonal abundance

### **Responses to fire:**

How does it respond to fire

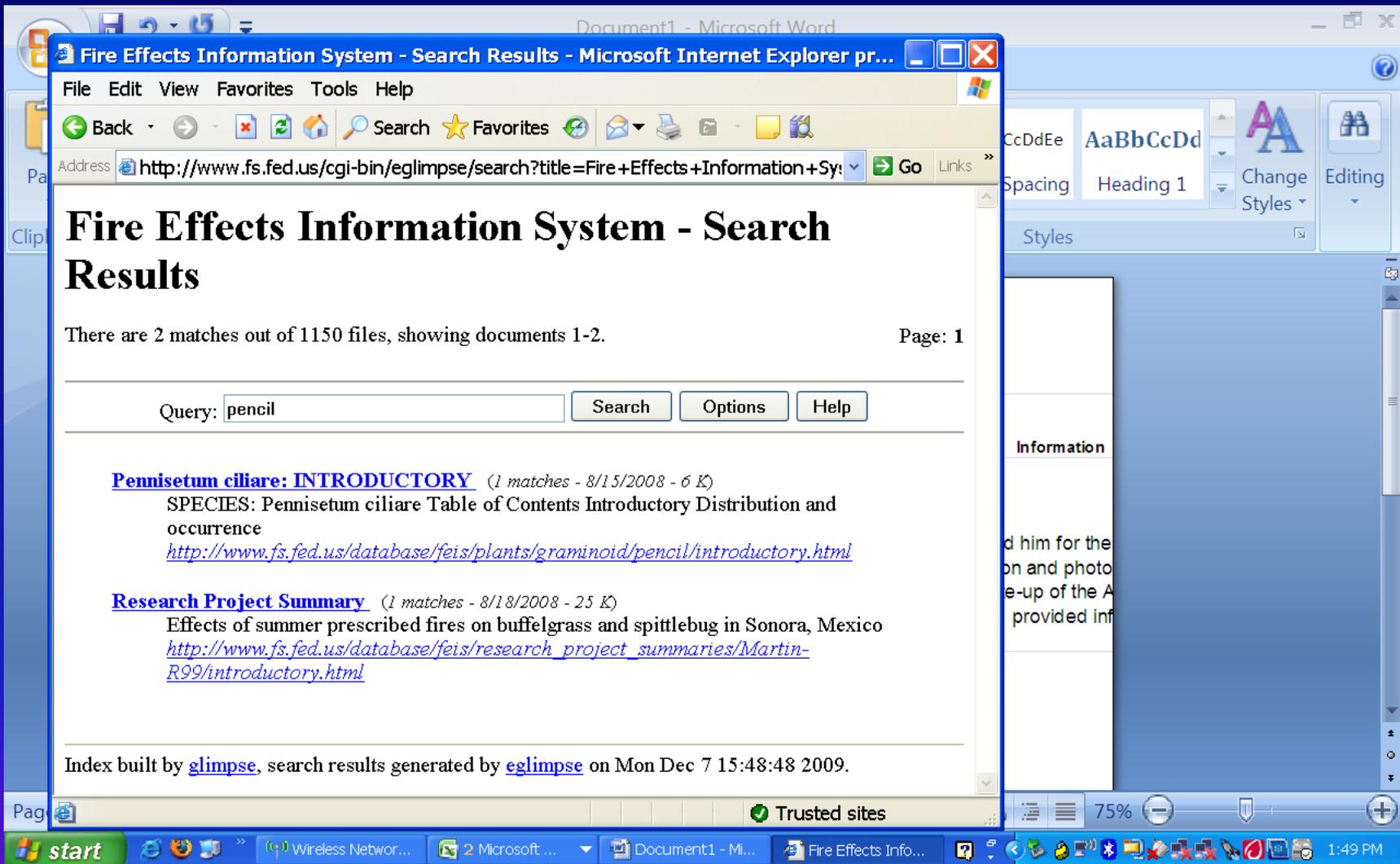
at different severities, frequencies, or seasons?

### **Control:**

What can we do to control this plant?

What have we tried that failed?

sci	com	Ba	CF	IDR	Ja	PR	SFI	StL	To	Total
Melaleuca quinquenervia	melaleuca	x		x			x	x		4
Bambusa vulgaris	common bamboo				x			x	x	3
Leucaena leucocephala	leadtree			x	no			x	x	3
Lygodium microphyllum	Old World climbing fern	x	x				x			3
Panicum maximum	guineagrass				x	x			x	3
Albizia lebbeck	woman's tongue			x	x					2
Casuarina equisetifolia	sheoak	x		x						2
Imperata cylindrica	cogon grass		x				x			2
Jatropha curcas	Barbados nut		x				x			2
Melinis repens	Natal grass		x				x			2
Pinus caribaea	Caribbean pine				x			x		2
Schinus terebinthifolius	Brazilian pepper	x			x					2



Document1 - Microsoft Word

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Stop

Address http://www.fs.fed.us/cgi-bin/eglimpse/search?title=Fire+Effects+Information+Sy... Go Links

# Fire Effects Information System - Search Results

There are 2 matches out of 1150 files, showing documents 1-2. Page: 1

Query: pencil Search Options Help

**Pennisetum ciliare: INTRODUCTORY** (1 matches - 8/15/2008 - 6 K)  
SPECIES: Pennisetum ciliare Table of Contents Introductory Distribution and occurrence  
<http://www.fs.fed.us/database/feis/plants/graminoid/pencil/introductory.html>

**Research Project Summary** (1 matches - 8/18/2008 - 25 K)  
Effects of summer prescribed fires on buffelgrass and spittlebug in Sonora, Mexico  
[http://www.fs.fed.us/database/feis/research\\_project\\_summaries/Martin-R99/introductory.html](http://www.fs.fed.us/database/feis/research_project_summaries/Martin-R99/introductory.html)

Index built by [glimpse](#), search results generated by [eglimpse](#) on Mon Dec 7 15:48:48 2009.

Page 75% Trusted sites

start Wireless Networ... 2 Microsoft ... Document1 - Mi... Fire Effects Info... 1:49 PM



# Citation Retrieval System



visitor Home | Search

Results of Search Pattern:  
( Citation.keywords LIKE '%casequ%' AND Citation.keywords LIKE '%fire eff%' ) AND (status='published' OR status='checked')

Found 14 citations (search=0 sec, format=0 sec)

**Baskin, Carol C.; Baskin, Jerry M. 2001.** Seeds: ecology, biogeography, and evolution of dormancy and germination. San Diego, CA: Academic Press. 666 p. [FEIS id: 60775] [Call: B(misc)]

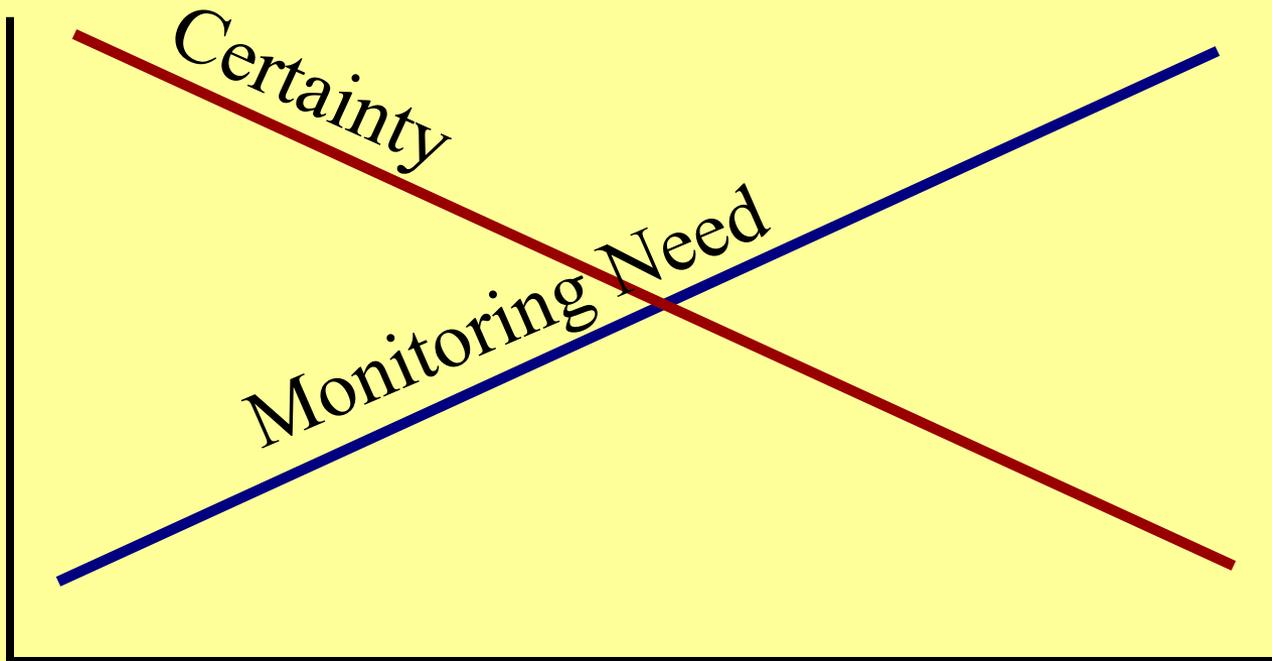
**Center, Ted D.; Doren, Robert F.; Hofstetter, Ronald L.; Myers, Ronald Whiteaker, Louis D, eds. 1991.** Proceedings of the symposium on exotic pest plants; 1988 November 2-4; Miami, FL. Tech. Rep. NPS/NREVER/NRTR-91/06. Washington, DC: U.S. Department of the Interior, National Park Service: 387 p. [FEIS id: 17854] [Call: B]

Done

Slide 27 of 27 "Default Design"

44%

Need for monitoring and adjusting is great where certainty is low.



Pay attention!