Rapid assessment of the need for a detailed Pest Risk Analysis for *Stenchaetothrips spinalis* Reyes 1994

STAGE 1: INITIATION

1.What is the name of the pest?
Stenchaetothrips spinalis Reyes 1994 (Thysanoptera: Thripidae)
(no synonyms)

2. What is the pest's status in the EC Plant Health Directive (Council Directive 2000/29/EC[1]) and in the lists of EPPO[2]?
Not listed

3. What is the reason for the rapid assessment?
Found outdoors on bamboo at a public botanical collection in July 2010. The bamboo was also infested with bamboo mites and was cut down to the ground and the stems burnt. The bamboo was located right up against a wall in a warm, dry, protected, spot, and had been present there since the mid 1990s. However, it is suspected that introduction of the thrips may have occurred in 2008 when two large "architectural" bamboo plants, for sale, were stationed only a few metres away at the threshold of the public exit that passes through the nearby shop. The species was first found in the UK at a commercial nursery in 2002 and that population was at first subjected to statutory control. However, this requirement for statutory control was subsequently ceased on the basis that the thrips was restricted to bamboo and unlikely to survive outdoors.

STAGE 2: RISK ASSESSMENT

4. What is the pest's present geographical distribution?
Asia: Phillipines (Reyes, 1994)
Europe: France (established at two locations outdoors, one in the South East, and one in the South West (Philippe Reynaud, INRA, personal communication, 2010; Reynaud, 2010, confirming Streito & Martinez, 2005); ?the Netherlands, ?Germany (both mentioned, along with the UK, by Vierbergen *et al*., 2010, as countries into which the thrips has been "introduced with 'garden bamboo' - however, as an indicator to the likely meaning of Vierbergen's use of "introduced" it should be noted that the UK reference refers to the eradicated nursery outbreak (see below)).

5. Is the pest established or transient, or suspected to be established/transient in the UK?
Has been reported in the UK on two occasions: the recent outbreak and an outbreak under glass at a nursery in the south of England, in 2002.

6. What are the pest's natural and experimental host plants; of these, which are of economic and/or environmental importance in the UK?
Bambusoideae: records include *Bambusa* spp., *Phyllostachys aurea*, *Pleioblastus* sp..

7. If the pest needs a vector, is it present in the UK?

The pest does not require a vector.

8. What are the pathways on which the pest is likely to move and how likely is the pest to enter the UK?
The pathway appears to be trade in bamboo plants.

	Very unlikely	Unlikely	Moderately likely	Likely	Very likely
Bamboo plants				X	

9. How likely is the pest to establish outdoors or under protection in the UK?
Stenchaetothrips spinalis has already established isolated populations on two occasions in England, once under glass and once on a specimen plant outdoors. However, it remains to be seen whether it could establish outdoors more widely (the outdoor plant was in a sheltered location).

	Very unlikely	Unlikely	Moderately likely	Likely	Very likely
Outdoors:			X		
Under protection:				X	

10. How quickly could the pest spread in the UK?
Natural spread is unlikely to be a major factor within the UK; spread by the trade is a far more likely dispersal route.

	Very slowly	Slowly	Moderate pace	Quickly	Very quickly
Natural spread:	X				
In trade:		X			

11. What is the area endangered by the pest?
Likely to be very small, either ornamental plants under glass or bamboo plants outdoors but in sheltered locations.

12. What is the pest's economic, environmental or social impact within its existing distribution?
There is almost no information available on the species beyond the original description and subsequent host records; there is no indication that it has had any economic impact. No damage has been seen in France (Philippe Reynaud, INRA, personal communication, 2010).

Very small	Small	Medium	Large	Very large
X				

13. What is the pest's potential to cause economic, environmental or social impacts in the UK?
Species in the genus *Stenchaetothrips* apparently all live on grasses and bamboos, breeding on the leaves rather than in the flowers. Thirty of the thirty two species are Asian and most are obscure. One species, *S. biformis*, is a widespread pest of rice crops (it is also found in Europe - hitherto the only species in Europe - where it is largely associated with *Phragmites australis* and does not cause problems; in Britain, it is rare with only local occurrences). There is no evidence to suggest that *S. spinalis* has any characteristics that would make it more likely to pose any economic impacts in the UK. Bamboo is a minor ornamental crop used largely for landscaping or as specimen plants in domestic gardens. The scale of production in the UK is not known but is likely to be small.

Very small	X	Small		Medium		Large		Very large	

14. What is the pest's potential as a vector of plant pathogens?
No species of *Stenchaetothrips* is currently known to vector plant pathogens.

STAGE 3: PEST RISK MANAGEMENT

15. What are the risk management options for the UK?
In 2002, recommendations were made on a precautionary basis as the specific identity of the thrips in question was not established at the time and so uncertainties remained with regard to its pest status. The recent finding differs in being both outside and in the context of *S. spinalis* having subsequently established at two European locations, albeit in the southern part of France. The outdoors thrips population caused no notable damage (the plant was being examined for mites; the finding of the thrips was secondary and unexpected), and the population has hopefully been eradicated by the simple measure of cutting the host plant down to the ground.

Exclusion: The fact that the thrips lives in the leaves rather than in the flowers makes it cryptic and hard to find. Exclusion would not appear to be a feasible option.

Eradication and containment: Eradication, e.g., using chemical applications, has been achieved in the past in a protected environment. During the 2002 outbreak under glass statutory treatment recommendations were made, namely applications of 'Conserve' (spinosad), 'Dynamec' (abamectin) and malathion in rotation at 5-6 day intervals. At the time, it was noted that a full eradication programme was not realistic given the balance between resource intensity and the likely low risk posed by the thrips. Nevertheless, the thrips population appears to have been eradicated.

However, eradication may not be possible for larger outbreaks, especially outdoors. Compounds currently approved for the control of thrips on ornamental plants outdoors include deltamethrin (e.g., Decis), thiamethoxam (Centric) requiring SOLA 2230 or 2008, abamectin (e.g., Acaramik), and imidacloprid for container grown ornamentals only (e.g., Intercept 70WG). Malathion is no longer registered for use in the UK.

Single specimen plants that are infested can be cut down. However, no reference is made in the literature to the location of the pupal stages.

16. Summary and conclusion of rapid assessment.

This rapid assessment shows:

Risk of entry
The species has already entered the UK on at least two occasions and has entered and established in France. It is clearly moving in trade, though probably at very low levels.

Risk of establishment
Small populations have been found in the UK twice so it clearly has the potential to establish. However, the first population was under glass and the second was limited to a specimen plant in a particularly sheltered location, and it remains uncertain whether or not it could establish outdoors more widely.

Economic impact
The species is not known to have caused any economic impact in either its area of origin or in France.

Endangered area
Likely to be very small, either ornamental plants under glass or bamboo plants outdoors but in sheltered locations.

Risk management
Exclusion would not appear to be a realistic option given the thrips cryptic habits. An indoor outbreak (in 2002) was eradicated using applications of 'Conserve' (spinosad), 'Dynamec' (abamectin) and malathion in rotation at 5-6 day intervals (malathion is no longer registered for use in the UK). However, eradication may not be possible for larger outbreaks, especially outdoors. Compounds currently approved for the control of thrips on ornamental plants outdoors include deltamethrin (e.g., Decis), thiamethoxam (Centric) requiring SOLA 2230 or 2008, abamectin (e.g., Acaramik), and imidacloprid for container grown ornamentals only (e.g., Intercept 70WG).

17. Is there a need for a detailed PRA? If yes, select the PRA area (UK or EU) and the PRA scheme (UK or EPPO) to be used.

No ☑

Yes ☐ PRA area: UK or EU ☐ PRA scheme: UK or EPPO ☐

18. Given the information assembled within the time scale required, is statutory action considered appropriate / justified?

Yes Statutory action ☐ No Statutory action ☑

19. IMAGES OF PEST

No images are available.

REFERENCES

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