A Foliar Nematode Problem of Birds-Nest Fern

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A foliar nematode, *Aphelenchoides fragariae*, is a long-known pest of birds-nest fern, *Asplenium nidus*. Since May 1965, *A. fragariae* has been found on birds-nest fern in the following Florida counties: Manatee, Orange, Dade, Marion, and Hillsborough. Other states reporting this association are California, Connecticut, New Jersey, New York and Pennsylvania.

**Symptoms:**

The first symptom of *A. fragariae* infection is usually the presence of small water-soaked areas near the frond base. These areas generally change to dark brown or black frond lesions. Affected areas tend to enlarge upward from the frond bases and may extend through most of the frond. The affected areas may enlarge rapidly under conditions of high temperature and excessive moisture. Several fronds may show symptoms at the same time. Some fern plants, particularly young ones, may become severely affected. In most cases, the dark lesions will remain turgid, permitting affected fronds to remain standing.

**Control:**

There are few studies on *A. fragariae* as they affect birds-nest fern. Effective chemical control of this nematode on birds-nest fern is unknown at this time. The most practical control is destruction of infested plants and the sanitary handling of clean nursery stock. All potting soil, pots, containers and storage benches should be sterilized prior to the introduction of clean stock. Birds-nest fern plants which have been in close proximity to infected plants should be spaced at safe minimal distances to prevent further spread and should be watched closely for symptom development.

![Fig. 1. Birds-nest fern leaves infested with *Aphelenchoides fragariae*.](image-url)
Hosts:

_A. fragariae_ has a wide host range, including plants of many plant families. Other ferns which are reported hosts of this nematode are:

- **Adiantum capillus-veneris**  
  (Venus-hair fern)
- **Adiantum tenerum**  
  (Brittle maidenhair fern)
- **Adiantum trapeziforme**  
  (Diamond maidenhair fern)
- **Adiantum sp.**  
  (Maidenhair fern)
- **Asplenium bulbiferum**  
  (Mother spleenwort)
- **Asplenium diversifolium**  
  (Spleenwort)
- **Asplenium sp.**  
  (Spleenwort)
- **Blechnum brasiliense**  
  (Brazilian blechnum)
- **Blechnum fraxineum**  
- **Blechnum gibbum**  
- **Blechnum moorei**  
- **Blechnum sp.**  
- **Coniogramme japonica**  
  (Bamboo fern)
- **Cystopteris bulbifera**  
  (Berry bladder fern)
- **Cystopteris fragilis**  
  (Brittle fern)
- **Dryopteris sp.**  
  (Wood fern)
- **Lygodium cinctum**  
- **Lygodium sp.**  
  (Climbing fern)
- **Lygodium voluble**  
- **Nephrolepis exaltata**  
  (Boston fern)
- **Osmunda regalis**  
  (Royal fern)
- **Phlebodium areum areolatum**  
  (Manda polypody)
- **Phlebodium areum mandianum**  
- **Polypodium brasiliense**  
  (Nipple polypody)
- **Polypodium punctatum**  
  (East Indian polypody)
- **Polypodium vulgare**  
  (Wallfern)
- **Polystichum munitum**  
  (Western sword-fern)
- **Pteris alexandrianae**  
- **Pteris altissima**  
- **Pteris altissima repandula**  
- **Pteris biaurita allosora**  
- **Pteris biaurita repandula**  
- **Pteris cretica**  
- **Pteris dentata**  
- **Pteris denticulata**  
- **Pteris longifolia**  
- **Pteris multifida**  
  (Spider brake)
- **Pteris podophylla**  
- **Pteris pullucida**  
- **Pteris quadriaurita**  
- **Pteris serrulata**  
- **Pteris sp.**  
  (Bracken, brake)
- **Pteris tremula**  
  (Australian brake)
- **Tectaria barteri**  
- **Thelypteris reptans**  
  (Creeping fern)