

New Pest Response Guidelines Pissodes castaneus

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New Pest Response Guidelines (NPRG)

- Pest Information
- Identification
- Survey Procedures
- Regulatory Procedures
- Control Procedures
- ► Environmental Compliance
- Pathways
- References
- Other



Pissodes castaneus – Pest Information: Historical Information and Classification

Major cause of pine dieback

Secondary pest responsible for death of pines

High plasticity and adaptive ability

Table 2-1 Classification of Pissodes castaneus (DeGeer)

Phylum	Arthropoda
Class	Insecta
Order	Coleoptera
Family	Curculionidae
Genus	Pissodes
Full Name	Pissodes castaneus (De Geer)
Preferred Common Name	Small Banded Pine Weevil



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Pissodes castaneus - Pest Information

Distribution

- Europe throughout
- Asia Turkey and Siberia
- ▶ Africa Algeria, Morocco, Madeira Islands, Canary Islands
- ▶ South America Uruguay and Argentina



Pissodes castaneus – Pest Information: Hosts

Hosts

Pinaceae

- ▶ Abies spp. fir
- ▶ Larix decidua common larch
- ▶ Pinus spp. pines (ex. P. pinaster)

Taxaceae

- ▶ Taxus baccata English yew (CABI, 2011)
- stressed or young trees prefentially



Pissodes castaneus – Pest Information Life Cycle (and Identification)



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Beentree, Gomez and Hartel, 2009



Maja Jurc, University of Ljubljana, Bugwood.org

High Phenological Variability

- One generation/two years to three generations per year
- Two types of development: I I-I2 months and 2-3 months
- Adults and mature larvae overwinter



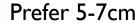
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Pissodes castaneus – Pest Information Symptoms



Gomez and Hartel, 2010





Gomez and Hartel, 2010



Gomez and Hartel, 2010



Pissodes castaneus – Pest Information Symptoms



Gomez and Hartel, 2010



Gomez and Hartel, 2010



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Pissodes castaneus - Symptoms



Milan Zubrik, Forest Research Institute - Slovakia, Bugwood.org



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Pissodes castaneus – Survey

- Trap logs
- Pheromone Lures



Zaleski, 2009



Zaleski, 2009



Pissodes castaneus – Control

Keep trees unstressed

- Natural enemies
 - ▶ High levels of parasitism
 - Parasitoids
 - Entomopathic Fungi



Zaleski, 2009



Pissodes castaneus - Pathways

- Current location and possibility for natural movement.
- Wood shipments



Gomez and Hartel, 2010

Pissodes castaneus – Association with Pathogens

- Which comes first pathogen or weevil?
 - <u>Cronartium flaccidum</u> prefers to lay on edge of rust but avoids actual rust
 - ▶ <u>Aleppo Pine Knot Disease</u> In presence of *P. castaneus*, knots form. Without *P. castaneus*, no knots form.
 - Blue-stain fungus Leptographium serpens in presence of fungus,
 P. castaneus adults emerge earlier and in greater numbers.
 Prefer trees with the fungus. Not a vector for the fungus.





THANKS

PestLens

