

Allelopathy properties of Japanese Knotweed extracts

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Research intention

Invasive plants – *Reynoutria* species, *Impatiens* species, ...

New procedures for isolation and identification of biologically active compounds (sorbents, columns).

Analytical methods for secondary metabolites of plants.

Testing procedures of plant extracts (phytotoxicity, seed germination, toxicity to insects, ...).

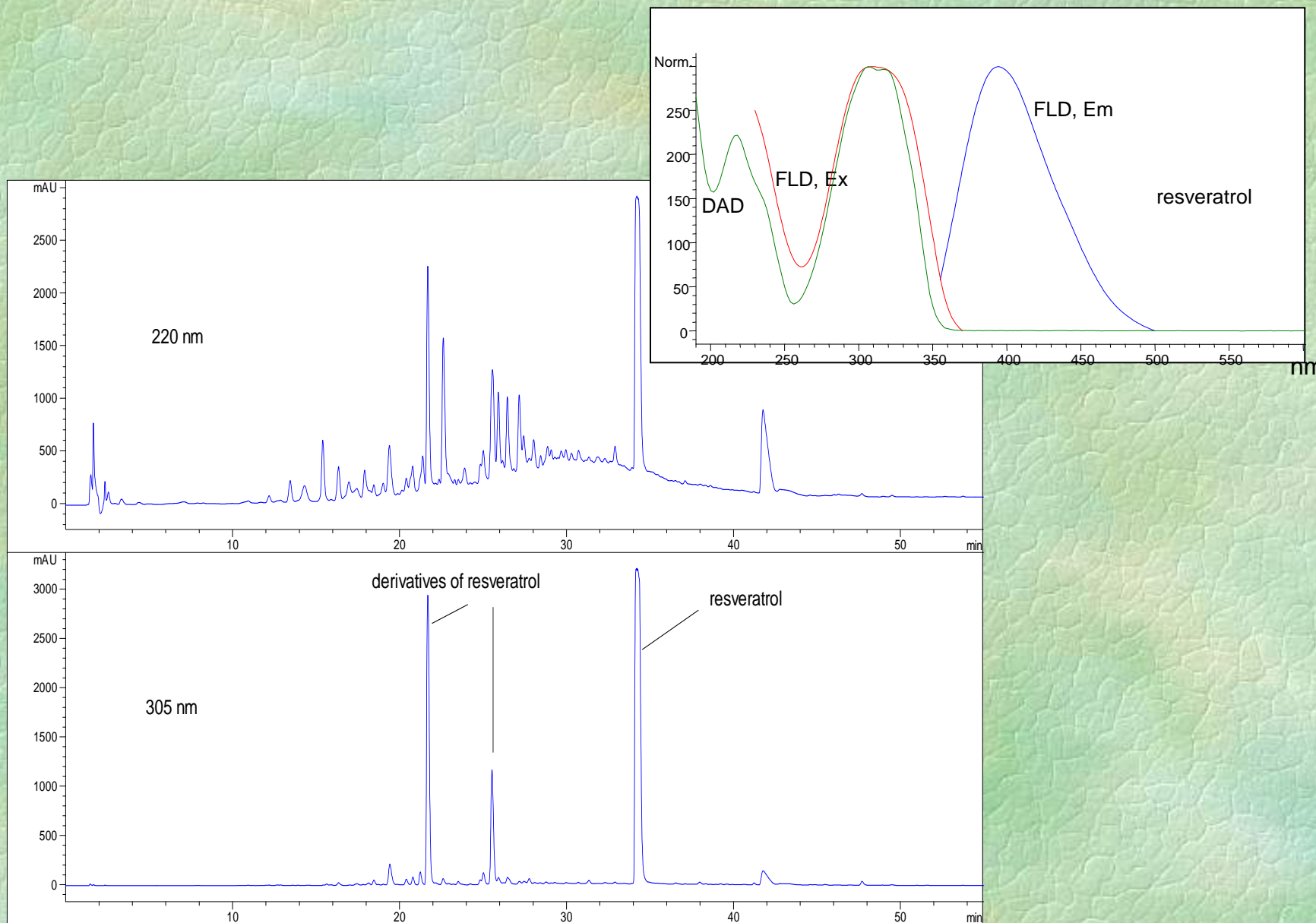
The extensive overgrowth of Japanese Knotweed (*Polygonum cuspidatum*, synonym *Reynoutria japonica*).

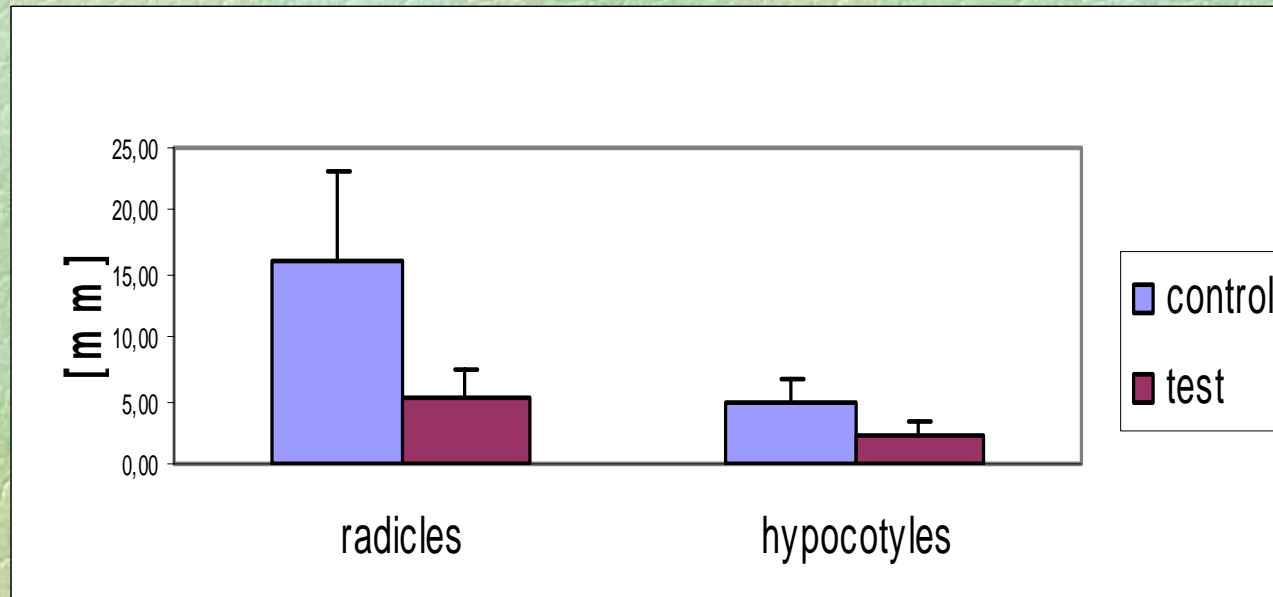


Sampling of *R. sachalinensis* plant materials

Giant Knotweed (*Polygonum sachalinense*, syn. *Reynoutria sachalinensis*)

Chromatogram of phenolic compounds extract from rhizomes of Japanese knotweed.





The influence of the aqueous extract of Japanese Knotweed dried rhizomes on the length radicles and hypocotyles of White Mustard (*Leucosinapis alba*) .

Biological activity of Reynoutria extracts

- Prevention of seed germination
- Inhibition growth radicles and hypocotyles
- Inhibition growth *Spodoptera littoralis* larvae