



Entomologia aplicada

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Docentes

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Sala de aula

Nº 24

Programa

Síntese sobre os principais aspetos de morfologia externa e interna e de desenvolvimento de insetos

Amostragem de populações de insetos: métodos, técnicas e dispositivos de amostragem; estimativas de abundância populacional

Identificação e biologia de pragas e auxiliares por grupos taxinómicos:

-Insetos: Orthoptera (e.g. gafanhotos), Hemiptera (e.g. cochonilhas, afídeos, mosquinhas-brancas), Thysanoptera (e.g. tripes), Neuroptera (e.g. crisopas), Coleoptera (e.g. alfinetes, álticas, escaravelhos, coccinelídeos, carabídeos); Diptera (e.g. tefritídeos, agromizídeos, sirfídeos, cecidomídeos), Lepidoptera (e.g. tortricídeos, noctuídeos), Hymenoptera (e.g. vespas, abelhas, formigas, himenópteros parasitóides);

Relações tritróficas: relações inseto-planta (e.g. fitofagia, transmissão de fitopatogénios, polinização), relações inseto/inseto (e.g. predação, parasitoidismo), inseto-microrganismo (e.g. patogénese, simbiose).

Dinâmica das populações de insetos: conceito de população, características gerais de uma população, padrões de distribuição espacial, modelos de crescimento populacional, fatores de regulação de populações, estudo de casos.

Coleção: elaboração de uma coleção de insetos

Program

Sampling insect populations: sampling methods, techniques and devices; estimating population abundance

Identification and biology of insect pests and their natural enemies:

-Insects: Orthoptera (e.g. grasshoppers), Hemiptera (e.g. scale insects, aphids, whiteflies), Thysanoptera (e.g. thrips), Neuroptera (e.g. green lacewings), Coleoptera (e.g. click beetles, leaf beetles, weevils, bark beetles, ladybeetles, ground beetles); Diptera (e.g. fruit flies, miner flies, hoverflies, gall midges), Lepidoptera (e.g. leaf roller moths, noctuids), Hymenoptera (e.g. wasps, bees, ants, hymenopteran parasitoids);

Tritrophic Interactions: insect-plant relationships (e.g. phytophagy, transmission of plant pathogens, polinization), insect-insect relationships (e.g. predation, parasitoidism), insect-microbe (e.g. pathogeny, symbiosis).

Insect population dynamics: the concept of population, general characteristics of a population, models of population growth, spatial distribution patterns, factors of population regulation, case studies

Insect collection: preparation of an insect collection

Bibliografia - Bibliography

- Bibliografia principal / main bibliography

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- Bibliografia complementar / other Bibliography

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Alguns sites – examples of sites related with entomology

International Code of Zoological Nomenclature

<http://www.iczn.org/>

The Tree of Life (Hexapoda)

<http://tolweb.org/Hexapoda/2528>

Entomology WWW: insect classification

<http://www.entnemdept.ufl.edu/choate/insecpdf.htm>

Entomology - North Carolina State University

<http://www.cals.ncsu.edu/course/ent425/>

<https://genent.cals.ncsu.edu/>

Bases de dados / databases

<http://www.europe-aliens.org/>

<http://www.faunaeur.org>

Outros portais

Discover Life

<http://www.discoverlife.org/>

Bugguide

<http://bugguide.net/node/view/15740>

CABI Invasive species

<http://www.cabi.org/isc/>