



# Special Databases

*Informační zdroje v zoologii*

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# Web of Science

- produced by Institute of Scientific Information
- contains millions of resources from all fields of science
- from 1950 in electronic form
- includes only selected journals
- annually 12 000 000 references are added
- from 16 000 resources (journals, books a proceedings) of which 8 700 are journals
- most references include abstract, address and list of citations in other papers

# *Institute of Scientific Information*

- founded in 1962
- Eugene Garfield with colleagues starts two projects:
  - database of patents in chemistry
  - database of published papers in genetics
- Science Citation Index (SCI) - the most complete citation index of scientific literature (150 areas)
- 150 journals includes 50% of all citations and 2 000 journals includes 85% of citations
- included are journals with periodicity, in English, reviewed, with local or international impact



# *Journal of Citation Report*

- published since 1975
- provides detailed information on journals including indices
- since 1960 Impact Factor (IF) is calculated
  - shows frequency of an average citation of a paper in other journals
  - $\text{number of current citations to papers from last 2 years} / \text{total number of papers published during last 2 years}$
- half-life (HL)
  - number of years for a journal, for which there are more than 50% of all citations in the current year

- IF of many journals fluctuates
- journals of small subjects (entomology, mathematics) have low IF but high HL than large subjects (biotechnology, genetics)
- the highest IF has review journals
- IF indicates which subjects are becoming popular
- comparison of journals' IF within a subject is recommended



# Other service

- **Highly-Cited:** Top 10 of the most cited scientists/teams for each subject
- **Index to Organism Names:** currently only animals are included
- **Biology Browser:** database of resources
- **Science Watch:** interviews on current research



# Homework

1. Find which of 10 references you found previously are included in the Web of Science.
2. Find Impact factor (IF) and the half-life (HL) of these journals.