Report on ERFP ad hoc action

Indicators for monitoring status and trend of honeybees and pollination ecosystem service

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Background and aims

- At the 16th session of CGRFA, FAO was requested to consider including <u>domesticated honey bees and potentially other pollinators into DAD-IS</u>

- August 2017 : Proposal for an Ad Hoc Action under the WG Documentation and information
- Aims :
  - Review the literature available on honeybees monitoring
  - Identify indicators useful for monitor status and trend of honeybees population
  - Examine the applicability of the indicators on the basis of different country based case study: different info, breeding organization, monitoring plan…
  - identify simple indicators for the pollination ecosystem service
  - Propose the ways to implement these info/fields in EFABIS
- Proposal approved with a budget of 6.000 euro

Composition of the group

- Coordinator: E. Sturaro, Italy
- Members from WG info and Docu:
  - E. Charvolin, France
  - Z. Duchev, Bulgaria
  - C. Ligda, Greece
  - G. Polak, Poland
- FAO: R. Baumung
- External experts:
  - B. Basso, France
  - F. Hatjina, Greece

Plan of activities

- 12-13 April 2018:
  - meeting in Chalkidiki and Thessaloniki
  - deliverable: technical report
- 24-25 May 2018 (WG Docu & Info meeting, Padova):
  - Presentation of technical report
  - Discussion and comments on the outputs
- Finalization of the report and presentation at ERFP Annual Assembly (25.08.2018, Zagreb)
- Deliverables:
  - Report
  - Recommendation for implementation of specific fields on EFABIS/DAD-IS
  - Mini-review titled “An overview of the biogeography of honey bee sub-species in Europe, breeding and conservation activities”

Key points towards DAD-IS/EFABIS development - 1

- Data will be collected on sub-species level. A drop-down list of sub-species (and hybrids) will be implemented into the system

- Further investigation on the definition of "line" is needed
  - how lines are managed (breeding program, different private or public bodies) (differences exist among countries)

- Monitoring organisations: what they are monitoring (list of examples and check boxes)

- Data on number of colonies collected and updated on a yearly base (at the same time ideally). Month and year of data collections will have to be indicated. For the number of colonies estimates providing a range is sufficient.

Key points towards DAD-IS/EFABIS development - 2

- Breeding programs in place (drop down list including breeding activities (checkbox: breeding centres, mating stations, objectives and strategies for selection…,) and text fields for responsible organisation (s)

- Conservation measures in place (drop down list including cryconservation and text fields for responsible organisation (s))

- Main threats (checkbox + ranking)

- Main Uses (checkbox + ranking) - ESS is included in main uses.

- Image upload (practices, maps, bees…), links and references

Key points towards DAD-IS/EFABIS development - 3

- The invited bee experts prepared a mini literature review (*how to characterize subspecies – overview of conservation programs world level*), which can be used as a back bone of further work
  - The review refers also to some of the behavioural traits characterising the subspecies, mentioned in the past. The ' behavioural traits' are constantly under the pressure of natural selection as well as of beekeeping practices
  - Detailed information on these traits, through monitoring and conservation programs might give more clear differences among the subspecies
- The limited glossary included aims to facilitate the understanding of the 'apiculture world' by a non-bee expert but it can be developed further for the harmonization of the terminology used across countries

The inclusion of the bees data in DAD-IS/EFABIS will create the first ever source of the global picture of honey bee health, reproduction and trends

Questions and comments……