

## Additional File 1

### Operational definitions and clarification of terms

**Arable crop or grass field:** The crop or grass field are often (but not always) used as the comparators, for example when comparing the biodiversity of field margins to the crop or field.

**Biodiversity:** all organisms excluding fungi and bacteria and agricultural pests.

**Biotope:** Defined as an area of uniform environmental conditions and biota – in this case used to distinguish between different treatments or land use type (crop, grass field, field margin, agri-environment options etc.)

**Direct effect of pesticide:** Studies of a named pesticide on an organism.

**Farms under agri-environment schemes:** Studies that identify that they are comparing farms under agri-environment schemes with those not. The actual prescriptions may or may not be mentioned. Therefore, this includes and all studies examining the efficacy of such schemes or their components.

**General farm intensity:** Studies of a gradient of farming intensity is mentioned but not farming system type (eg. organic or conventional). An example is for example look at changes in farmland bird populations over long periods when there has been a general intensification of conventional farming.

**Intensive and extensive grassland:** “Intensive” is concentrated or frequently grazed or mown grasslands and “extensive” is the converse.

**Invertebrate food for farmland birds:** Used only where specified in the abstract.

**Natural enemies:** Species that eat crop pests. All known European spiders are predatory have therefore been included As not all carabids and syrphids are predatory, these are included as natural enemies only when mentioned as such in a study.

**Pollinators:** Pollinators here include all bees, butterflies and syrphids, but only in other groups where mentioned as such in the abstract.

**Soil organisms:** Includes earthworms and collembola. This category was also selected if invertebrate soil organism was mentioned in the text in the abstract.

**Temperate Europe:** All European countries west of Russia, but excluding all countries south of France, Switzerland, Austria, Hungary and Romania

**Tillage:** The system used to cultivate soil ie. ploughing (deep cultivation), minimal tillage (where soil is hardly disturbed), or no tillage (direct drilling with no movement of soil).