Use of synanthropic "sentinel" bird population to monitor environmental levels of EDCs: the case of the common swift (*Apus apus*)

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Many bird species represent successful "commensal type" species, having based successful adaptation and rapid radiation on co-adaptive use of human by-products. Other species are strictly associated with human settlements, especially for breeding or roosting, therefore sharing with human populations a somehow similar exposure pattern of man-made chemicals. Here, data on tissue levels of PCBs, PCDDs, DDE, DDT, and HCB in an urban population of common swift (*Apus apus*), an aerial arthropod feeder, are reported together with an analysis of selected behaviours during offspring rearing. Although no direct mechanistic relationship is evident, the high levels of certain contaminants (in particular DDE and PCDDs) together with pattern of behaviour which deviate from the expectation in the study species (*i.e.* bi-parental care *versus* maternal care) support the idea that the observed correlation may be causal. Other case studies are reported: gulls treated with PCB, great tits with faded plumage, homosexuality in female oystercatcher. Finally, methodological requirements and caveats based on species-specific life-history traits, developmental styles and possibility to establish captive populations are discussed ending up with a list of bird species potentially appropriate to be used as “sentinels” for quality assessment of the urban and peri-urban environment.