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**CONFERENCE ON SPARROWS,  
20<sup>TH</sup> MARCH 2009, PISA, ITALY**

“*Passeri in crisi ? Da ‘pest’ a ‘species of conservation concern’*: biologia, problematiche e conservazione dei passeri” was the title of the Conference on Sparrows held in Pisa (Italy) on 20th March 2009. The conference was organized by LIPU/BirdLife Italy together with Province of Pisa, Assessorato alla Difesa Fauna and the Centre “Enrico Avanzi” of the University of Pisa. Support came from CISO (Italian Centre for Ornithological Studies).

The idea to organizing this conference followed the establishment of the international Working Group on Urban Sparrows (WGUS) that had its second meeting last February 2009 in Newcastle, UK. The conference in Pisa was the occasion to join experts from 5 European countries (Poland, France, Norway, UK, and Italy) for discussing different aspects around the Sparrows: distribution, genetic, conservation, monitoring, breeding biology, habitat, health aspects, in urban as in rural environments. The conference was very successful. The room was full with over 100 participants: ornithologists, researchers, environmentalists, technicians, administrators, students and hunters.

After the greetings of the politicians from Province of Pisa and University of Pisa, the introduction to the conference came with a videoclip given by J. Denis Summers-Smith, the man that has dedicated his life to the study of Sparrows. In the words of Denis “There is no genus of wild birds that has a closer relationship with man than *Passer*, the Sparrows. They occur in farmland, but their most characteristic relationship is that with man’s built-up urban environment. In the 1970s, with the increasing urbanization of man providing more of the habitat to which this bird is uniquely adapted, I was predicting a successful future for the species. How wrong could I have been! In the time I have been studying the House Sparrow its status in the UK has changed from that of pest to a species of national conservation concern”. In fact the House Sparrow is now undergoing a dramatic decline in numbers in large towns over much of NW Europe, leading in some cases to their virtual extinction. The urban decline started about 1990 and shows no sign of stabilizing as yet. More recent studies show that the decline is by no means uniform, but depends on the type of the urban environment, being most severe in the centres of large towns.

The topic of the first lecture “Synurbization - a new phenomenon in animal world” by Maciej Luniak of the Institute of Zoology, Polish Academy of Sciences in Warsaw defined three terms in their relation to animal ecology: “Urbanization” denotes changes

in landscape caused by urban development; “Synanthropization” means the coexistence of wild animal populations with humans and their existence in anthropogenic habitats; “Synurbization” is a particular case of synanthropization - it refers to the adjustment of wild animal populations to specific conditions of the urban environment.

In the second introductory presentation Marco Dinetti of LIPU/BirdLife Italy showed the “Sparrows Project” (Progetto SOS Passeri LIPU) underlining that some time ago Sparrows were considered agricultural “pest” species, while they are now listed as “SPEC” species of conservation concern. The Italian situation is quite particular, as four species of the genus *Passer* currently live in the country: House Sparrow *Passer domesticus* (in the Alps and in the cities of Aosta and Trieste); Italian Sparrow *Passer italiae* (common species in cities and rural areas of the peninsula); Spanish Sparrow *Passer hispaniolensis* (in Sicily and Sardinia); Tree Sparrow *Passer montanus* (in countryside and suburbs). Recent advances of the “Sparrows Project” included the publication of the brochure “I Passeri” in order to raise public awareness in addition to some direct actions to prevent bird/window collisions through collaboration with motorway agencies to plan bird-friendly noise barriers. The monitoring programme was launched in collaboration with CISO (*Centro Italiano Studi Ornitologici*). The conclusion of the lecture was that Sparrows are an umbrella species with a strong appeal to the public and they are good indicators of the quality of the urban environment, the habitat in which most of us now live.

In the session on status and conservation, Marco Gustin, Patrizia Rossi and Claudio Celada of LIPU/BirdLife Italy recalled that in the last edition of *Birds in Europe* the European Sparrow and the Tree Sparrow were considered SPEC 3, while the Spanish Sparrow was considered “secure”, and the Italian Sparrow was not considered. All these species are urban/suburban specialists, although the Spanish Sparrow and the Tree Sparrow are basically more “rural” compared to the House Sparrow and the Italian Sparrow. All four species are generalist with respect to trophic resources used. In the farm landscape, in particular for Spanish and Tree Sparrows, it would be desirable to promote agricultural policies that consider the ecological requirements of *Passer* species.

After, Guido Tellini Florenzano, Tommaso Campedelli, Elisabetta De Carli, Lia Buvoli and Guglielmo Londi by DREAM Italia in Poppi (Arezzo) and the Associazione Fauna Viva in Milan reported the relationships between Sparrows and the rural habitat, using the MITO2000 project database. The ecological models for *Passer montanus* and *Passer italiae* describe their presence and abundance with some ecological parameters, most of them linked to the agricultural environment. Particular attention was drawn to those variables linked with the structure of farms and with the intensity of agricultural practices.

The second session concentrated on distribution and genetic issues. Here the lecture by Stein Are Saether, Jo S. Hermansen, Thomas Borge, Elin Hjelle and Glenn-Peter

Saetre from Department of Biology, University of Oslo was “Molecular genetics of the Italian Sparrow: a separate species, a variety of House Sparrow or Spanish Sparrow, or a hybrid?”. Indeed the taxonomic status of the Italian Sparrow is controversial: because the male plumage is intermediate between House Sparrow and Spanish Sparrow, Meise (1936) suggested that it is a stabilized hybrid form between these species. Without much further evidence subsequent ornithologists accepted the hybrid conclusion and the name given to the Italian Sparrow became a matter of personal preference. More interesting is the evolutionary history of the Italian Sparrow: did it really originate as a hybrid? Or did it evolve in isolation after recently becoming geographically separated from either House Sparrow or Spanish Sparrow? Or does it have a long history of its own, qualifying for status as a separate species? Analysing genetic variation using modern molecular methods provides objective ways of answering the Italian Sparrow puzzle. Results show that the Italian Sparrow is not a “species”: not reproductively isolated from House and Spanish Sparrows, not a separate phylogenetic lineage (based on mtDNA), not a separate genotypic cluster (based on microsatellites). It seems to be a hybrid taxon (mosaic of House Sparrow and Spanish Sparrow genes, based on microsatellites). It probably arose in Italy from a hybrid swarm less than 20,000 years ago, before agriculture and Sparrows became common elsewhere in Europe. The Italian Sparrow may continue to exist because the Alps and Mediterranean are effective barriers to current gene flow.

After, Marco Masseti of the Department of Biology, University of Florence talked of the artificial diffusion of the House Sparrow in relation to its past and present capacity for invading new areas of distribution. In some of the geographic areas in which it is currently diffused, the House Sparrow may have been introduced even by passive transport (i.e. ship assisted). Recent zoogeographical comparisons have generated the hypothesis that the current population of Italian Sparrows of the Cretan area (Crete, Kasos and Karpathos, Greece) may have had a recent anthropochorous origin, since it cannot be ruled out that they were introduced onto the Greek islands -even deliberately- in historical times.

Kate Vincent of Baker Shepherd Gillespie in UK presented the breeding success of House Sparrows in urban areas. The reproductive success in a declining House Sparrow population was measured along an urbanization gradient in Leicester, to identify correlates of nesting success. During 2 out of 3 years, reproductive output was lower than the predicted threshold required for population stability. Years of inadequate reproduction were characterized by lower chick survival and body mass at fledging. Factors associated with reduced reproductive output included low ambient temperatures, extremes of rainfall, high levels of vegetable material in the diet, low aphid densities and high concentrations of air pollution from traffic.

From the Eastern Europe, Maciej Luniak and Andrzej Węgrzynowicz of Institute of Zoology, Polish Academy of Sciences in Warsaw presented the habitat distribution,

population changes and breeding success of House and Tree Sparrows in Warsaw. These species are still common in the city, but their abundance and habitat distribution show considerable changes over the last three decades. During the 2005-2007 breeding seasons, censuses covered 39 plots in three main habitats: housing estates (228 ha), urban parks (268 ha) and allotment gardens (62 ha). House Sparrows showed an average density in housing estates of - 44 pairs/10 ha, in parks - 3.8 pairs/10 ha and in allotment gardens - 1.6 pairs/10 ha. This reflects an average decrease of abundance of 39%. Tree Sparrow was most abundant in allotment gardens (38 pairs/10 ha, increase of 35%) and less so in parks (8.6, increase of 87%). Tree Sparrows have started colonizing housing estates most recently.

Frédéric Malher of Corif - Centre ornithologique Ile de France in Paris compared two methods used by non-professionals, during the same period, in order to describe the trend of the population of House Sparrow in Paris. These were monitoring by point-counts carried out by about 50 people and another by regular transects conducted by one person along some streets.

In the session on Biology and Habitat, Luciano Santini of Faculty of Agriculture, University of Pisa gave an objective assessment of the role of Sparrows in agroecosystems. In particular the author reported some information on the plants or parts thereof used by these birds as food.

Silvia Arena and Giuseppe Maria Carpaneto of Department of Biology, University "Roma Tre" in collaboration with Corrado Battisti of Nature Conservation Office of the Province of Rome outlined findings of their research on Italian Sparrows in a remnant Mediterranean wetland in central Italy.

The next session focussed on Population Monitoring of sparrows in urban and rural environments.

Francesco Mezzavilla, Katia Bettiol, Andrea Barbon, Saverio Lombardo, Stefano Morato and Elena Zampogno of the Associazione Faunisti Veneti and the Civic Museum of Natural History of Venice described the census of *Passer italiae* and *Passer montanus* breeding in the province of Treviso. Monitoring was carried out in 2004 and 2008 using the "Distance sampling" method.

Roberto Tinarelli of the AsOER - Associazione Ornitologi dell'Emilia-Romagna in Ozzano dell'Emilia (Bologna) reported the decline of Italian and Tree Sparrows in Emilia-Romagna in the Autumn of 2000. The results of counts using standardized methods in an area surrounding a solid waste discharge between 1997-2005 and information on the presence in fodder factories, night roosts in reed beds in wetlands and on the use of nest-boxes indicate a sudden population decrease of these species which happened simultaneously in several localities in the provinces of Bologna, Modena, Ferrara and Forlì-Cesena.

Fulvio Fraticelli of Fondazione Bioparco in Rome showed the preliminary data of the new Rome bird breeding Atlas. However since there are no data regarding density, it is not possible to use this tool to verify any decreases.

The status of Italian and Tree Sparrows in the cities of Tuscany covered by bird Atlas (Florence, Livorno, Pisa, Grosseto, Prato, Lucca) was given by Marco Dinetti of LIPU/BirdLife Italy and his collaborators Pietro Giovacchini of Gruppo Ornitologico Maremmano in Grosseto, Claudio Del Lungo of Municipality of Florence, Gaetano Licitra, Antonella Chesi, Claudia Chiari, Cinzia Licciardello and Mario Cenni of Environmental Protection Agency in Florence, Arianna Chines of Perlambiente in Lucca and Domenico Verducci of WWF Lucca. In particular, data about the distribution and abundance of these species was shown, and some relationships with land use and with different sources of environmental pollution were investigated.

The last session focussed on health aspects.

Renato Ceccherelli, Riccardo Gherardi and Gianluca Bedini of CRUMA-LIPU in Livorno indicated that the main causes of death for nestlings of Italian Sparrow brought to the bird recovery centre in the province of Livorno were similar to those obtained by Pinowski *et al.* in Poland.

Five posters were also presented at the Conference (the texts are published in the Proceedings).

Proceedings of the Conference are now printed and available: 116 pages, special issue of the journal "Ecologia Urbana" [www.ecologia-urbana.com](http://www.ecologia-urbana.com) (Europe € 25,00). Ask to: [info@edizionibelvedere.it](mailto:info@edizionibelvedere.it)

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