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Via J.-H. Dunant 3, 21100 Varese, Italy

email: editor@italian-journal-of-mammalogy.it

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edited by

G. Guidarelli, G. Sozio, D.G. Preatoni

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XI Congresso Italiano di Teriologia

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20-22 Giugno 2018

Riassunti: Comunicazioni e Poster

edited by
G. Guidarelli, G. Sozio, D.G. Preatoni

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segreteria.atit@gmail.com

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XI Congresso Italiano di Teriologia

The life of M1, an Italian wolf affected by Canine Distemper Virus: release and monitoring by GPS telemetry

F. VERCILLO¹, D. GRELLI¹, G. LA PORTA², M. GOBBI³, N. D'AVINO³, B. RAGNI², L. CONVITO⁴, U. SERGIACOMI⁴¹WildUmbria Association, Perugia, Italy. e-mail: francesca.vercillo@wildumbria.it²Dept. of Chemistry, Biology and e Biotechnology, University of Perugia, Italy³Istituto Zooprofilattico Sperimentale di Umbria and Marche "Togo Rosati", Perugia, Italy ⁴Osservatorio Faunistico Regionale, Regione Umbria, Perugia, Italy

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Introduction M1, a 3-year-old Italian grey wolf (*Canis lupus*), was found in the countryside of Umbria (Central Italy) on 29 March 2016, exhibiting serious neurological symptoms, such as ataxia, lateral recumbency, and pedalgae. After excluding trauma and poisoning, principal infective diseases were investigated, showing serological positivity to IgM for Canine Distemper Virus (CDV). Polymerase Chain Reaction (PCR) was performed on biological samples and confirmed the infection with Articular strain of CDV, which induces a high rate of mortality in wild animals. M1 was subjected to long-term hospitalization associated with constant health monitoring. The clinical condition of M1 rapidly improved and the control test for viral RNA showed negativity from September 2016. Full recovery from CDV was definitely confirmed by further check-ups.

Methods Since the release of an animal affected by this serious disease presents lots of risks, M1 was equipped with a GPS and VHF tracking collar (Followit Tellus Medium). In order to understand how M1 reacted and adapted to the release in nature, his GPS-track was analysed with the aim to investigate his day-night behaviour and habitat choice.

Results The release was successfully accomplished on 24 October 2016 in a non-hunting area, nearby the place where it had

been found. M1 was monitored for 45 days and he walked 197 km within an area of 93991 ha (Minimum Convex Polygon). During the first three weeks, M1 showed high motility, covering more than half of the total. The highest motility was recorded at night, while the lowest during the day (night 120 km, day 17 km, twilight 60 km); M1 walked closer to houses at night (average distance night=285.0 m, average distance day=426.2 m), as well as to streets (average distance night=493.8 m, average distance day=647.1 m) and chose to use forests and grassland at night ($\chi^2=310.35$; $p<0.001$), while it selected forests, avoiding grasslands and riparian vegetation ($\chi^2=87.444$; $p<0.001$) during the day.

Discussion M1 showed vitality and feeding ability. He alternated long periods of motility with brief periods of rest. This may depend on the need of finding a territory free from other wolves. This need may also force M1 to move to built-environments. However, as expected, he maintained distance from houses during the day.

Unfortunately, on 8 December 2016, M1 lost his GPS collar. We found it after 20 days immersed in a river: it is very likely that M1 was killed and the collar was thrown into the water.

XI Congresso Italiano di Teriologia

Interreg NAT2CARE Project: Activation of Citizenship for Restoration and Conservation of N2K Cross-Border Areas Italy-Slovenia

F. YANNICK, M. FRANCHINI, M. TREVISAN, C. FABRO, A. MADINELLI, S. FILACORDA

Dipartimento di Scienze Agroalimentari, Ambientali e Animali, Via Sondrio 2/A, 33100 Udine, Italy. e-mail: marcello.franchini@uniud.it



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Anthropic activities in human dominated landscapes, are causing widespread biodiversity loss and declines in ecosystem condition worldwide. The intensification of agricultural and silvicultural practices, land abandonment and other land uses such as recreation and hunting, represent potential threats which may lead to conflicts between stakeholder livelihoods and biodiversity conservation. Biodiversity loss is a matter of great concern among conservation scientist, but the wherewithal to reverse this trend is generally lacking. One reason, is which nearly half of the world's people live in urban areas and are disconnected from nature. Ecological restoration is considered as one of the best strategies to increase the provision of ecosystem services as well as reversing biodiversity loss. Collaboration among partners belonging to different countries, may represent an effective tool to prevent and/or reverse this phenomenon. Anyway, social and cultural barriers can make interaction difficult and, consequently, reduce the effectiveness of each conservation action.

The aim of the Interreg NAT2CARE Italy-Slovenia project is to promote the biodiversity preservation in Natura 2000 Areas belonging to the three project partner parks: Giulian Pre-Alps Regional Natural Park, Friulan Dolomites Regional Natural Park, and Triglav National Park, involving the realization of specific actions focused in avoiding the risk of fragmentation, reduction and biodiversity loss. The project started in early 2018 and will last until the middle of 2020. The research program will have to contribute to define, apply and evaluate innovative monitoring

protocols, regarding the presence and management of mammal species of community and conservation interest (brown bear, grey wolf, lynx, wild cats, golden jackal, otter and mustelids, chamois, alpine ibex and other ungulates), identify and promote ecosystem services, and carry out awareness-raising, environmental education and active citizenship engagement, also in monitoring activities. A key feature of the project is the transboundary dimension concerning the implementation of the planned actions, as all the animal species that are being monitored move easily from one country to another in a territory characterized by habitats with very similar characteristics. For this reason, the approach should be applied at transboundary level and a common protocol will be followed. Monitoring actions should also consider and evaluate the effect of bird presence, habitats, and human activities, and the research project will have to develop methods, addressed to citizens and stakeholder, which allow them to spread the goals and the methods used, as well as the intermediate and final results achieved, mainly through the realization of a communication plan, which involves the use of social networks, the publication of digital and paper material, brochures' drafting, and advertising campaigns. Considerable importance is given to implement useful methods, with the aim to increase the knowledge and awareness of citizens, stakeholders and managers, concerning the issues of biodiversity and wildlife conservation, making them the main suppliers of information, for achieving technical and scientific results.