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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

35th meeting
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Specific Site - File open

**Eradication and trade of the American grey
squirrel (*Sciurus carolinensis*)
(Italy)**

REPORT BY THE GOVERNMENT

*Document prepared by
the Ministry of the environment, land and sea, Italy*

- INFORMATION RECEIVED IN NOVEMBER 2015 -**Case file****“Eradication and trade of the American Grey squirrel (*Sciurus carolinensis*) in Italy”
Governmental Report prepared by the Ministry for the Environment, Land and Sea**

Following the 28th Standing Committee of the Bern Convention, a case-file was opened on Italy regarding the “implementation of Recommendation n° 123 (2007) on limiting the dispersal of the Grey Squirrel (*Sciurus carolinensis*) in Italy and other Contracting Parties”.

The Recommendation n. 123 (2007) asked Italy to:

1. *urge the Lombardia Region and the other competent local authorities to start without further delay the eradication program of the Grey Squirrel in the Ticino Valley, so as to significantly delay invasion of Southern Alps;*

Furtherly, the Recommendation asked the Contracting Party to:

2. *ban trade and possession of the Grey Squirrel;*
3. *eradicate new possible introduced populations of Grey Squirrels.*

This paper reports the state of the play of the issue, in order to give the 33rd Standing Committee the broader information needed to discuss the case-file.

Background

In response to the Recommendation 123(2007) Italian Ministry of the Environment, Land and Sea started a series of activities aimed to achieve the requested objectives, consisting of:

- a memorandum of understanding involving Lombardy, Piedmont and Liguria Regions, Universities and ISPRA (Italian high Institute for protection and research of the environment), to agree on necessary interventions in the field and to share consequent responsibilities and burdens. The MoU was signed in 2009.
- An action in the context of EU CITES Committee to promote community measures limiting trade of Grey squirrel.
- The preparation of a ministerial Decree to ban trade a possession in Italy of specimens of Grey squirrel.

Of all the carried out activities, the Standing Committee has been periodically and punctually kept informed.

National ban of Grey squirrel’s trading and possession

The ban Decree “Dispositions for the control of detention and trade of alien squirrels of the species *Callosciurus erythraeus*, *Sciurus carolinensis* and *Sciurus niger*” was issued on December 24th 2012 by the Minister of the Environment Land and See, in agreement with the Minister of Agricultural, Food and Forestry Policies and with the Minister of Economic Development; the Decree was published on 2nd February 2013 in Official Journal n° 28.

With the Decree it is forbidden to trade, to breed and to detain, in the whole national territory, specimens of three squirrel species (besides *Sciurus carolinensis*, also *Callosciurus erytherus* and *Sciurus niger*), defined as “alien squirrels”.

In short, these are the contents of the Decree:

- Prohibition of trading, breeding and detaining specimens of the three squirrel species in all the national territory
- Obligation of notifying within 90 days the possession for any purpose of specimen to State Forestry Corp;
- Obligation of notifying within 30 days the birth or the purchase of new specimens;
- Obligation of adopting every preventive measure to avoid accidental introduction of specimens in the natural environment and their reproduction;
- A temporary disposition that delay for six months the ban of trading and import the three species;
- Penalties for illegal detention, trade or abandonment of specimens;
- Exemptions from the ban decree disposals for zoos, research bodies, institutes or centres, wildlife conservation bodies, scientific bodies, circuses.

Regarding the implementation of the Decree, beside signals that it is working properly (shops stopped the selling of Grey squirrel), informations from CITES Territorial Services of Alessandria, Genova, Perugia, Torino and Verona affirm that no sanction have been applied for violation of the ban decree.

Control and eradication of Grey squirrel on the ground

In Lombardy, controlling grey squirrels started in 3 macro areas in the eastern part of the distribution range. Moreover, to avoid colonization of Switzerland, the removal of another alien squirrel *Callosciurus erythraeus* started in the province of Varese, where monitoring revealed a population at only 5 km from the Swiss border. Thus, staff of the LIFE project and of local authorities responsible for wildlife management, carried out trapping and euthanasia in 80 sites inside 4 out of 8 macro areas identified in the region; totally 2,220 animals were removed. Trapping of squirrels has resulted in a marked decrease in population size and halted any further expansion in the macro areas where control was carried out. In some trapping sites, complete eradication was achieved. Moreover, most sites where grey squirrels were strongly reduced were recolonized by native red squirrel.

Eradication/control of IAS will continue after the LIFE project, following priorities defined in the Grey squirrel permanent control plan for Lombardy. In order to continue the activities of control of populations of non-native squirrels, Region Lombardy provides for the allocation of additional resources. A resolution was recently approved for the continuation of the post LIFE activities for the years 2015 - 2017. A transfer of financial resources to local authorities is ongoing in these months. These funds, up to a maximum of € 80,000, will be used for the implementation of the Grey squirrel permanent plan in the provinces of Milan and Varese and the Parks Adda and Parco Lambro Valley, falling in the priority areas of intervention. Other € 25,000 are available for communication activities. From year 2016 control activities will also continue within the framework of the LIFE GESTIRE 2020, which for the first phase (January 2016 - June 2018) could allocate € 100,000 for control activities, € 15,000 for the elaboration of a control management plan for the areas not yet managed, € 20,000 for communication on invasive species. For the next 5 years it is estimated around €160,000 for the continuation of control activities and € 45,000 for the continuation of communication activities on invasive species.

In Piedmont, basing on an analysis of habitat characteristics, connectivity, grey squirrel abundance and the occurrence of local or nearby populations of red squirrels, the Task Force decided to concentrate efforts along the southern and western limits of the colonization front. Control was carried out in three types of habitats: 1) private parks with high quality woodland and a local grey squirrel population at high density (source area); 2) large lowland mixed deciduous forests with residual red squirrel populations at risk by recent colonisation of grey squirrels; 3) riparian woods acting as dispersal corridors. A total of 334 grey squirrels were removed from 10 areas in Cuneo province and 6 areas in Turin province. The Task Force collaborated with La Mandria Regional Park (Turin province) to eradicate a small population of grey squirrels. This park contains the largest lowland forest of Piedmont. Removal of the IAS has allowed the conservation of a healthy red squirrel

population. Overall, actions in Piedmont have resulted in strongly reducing grey squirrel numbers in the control sites, thereby saving red squirrel populations in three large lowland forests (1 forest in Turin and 2 forests in Cuneo provinces). Moreover, conservation of red squirrels through removal of grey squirrels has started in two other large woodlands in Cuneo province and a riparian woodland where a marked increase of the native species was observed.

Grey squirrel control should continue after the LIFE project as indicated in the Grey squirrel permanent control plan for Piedmont. Activities will continue with the collaborations of the staff of the provinces of Turin and Cuneo. The Piedmont Region is identifying the resources necessary for the continuation of the activities for the years 2015-2017.

EU Regulation on IAS

Regulation (EU) No 1143/2014 of the European Parliament and of the Council laying down rules to prevent and manage the introduction and spread of invasive alien species, obligates EU countries to take pressing measures for the management of alien species of particular importance, with the aim of eradication. The measure is in force since January 1st, 2015.

This regulation allows to address the rapid growth of invasive species, serious threat to biodiversity. Regulation is a key step to achieve the EU's objectives for 2020 to protect biodiversity.

According with art. 4 of the EU Regulation 1143/2014, on December 4th 2015, the 4th meeting of the Committee on Invasive Alien Species will approve the List of IAS of Union Concern, which includes alien squirrels, and will be ratified by European Commission. Regulation shall be binding in its entirety and directly applicable in all Member States.

To the Invasive species of Union relevance already in the territory of the Member States are applied certain management measures, consisting of physical, chemical or biological, lethal or non-lethal, aimed to eradication, control or containment of the population of exotic species invasive (art. 19, Chapter IV of the Regulation).

Conclusions

The decree establishing the prohibition of detaining and trading Grey Squirrels in Italy, was an important result and basically stopped the trade of this species.

The LIFE Project EC SQUARE concluded its momentum with many important goals as a pilot project. Beyond this experience the entry into force of Regulation (EU) N. 1143/2014 can finalize the efforts made by Italy in order to fulfil the international commitments taken.

Within this renewed international regulatory framework, we believe that the case-file has finished its driving force and can be closed.

- INFORMATION RECEIVED IN AUGUST 2015 -

Case file

“Eradication and trade of the American Grey squirrel (*Sciurus carolinensis*) in Italy”

Governmental Report prepared by the Ministry for the Environment, Land and Sea

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5. *ban trade and possession of the Grey Squirrel;*
6. *eradicate new possible introduced populations of Grey Squirrels.*

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Background

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Control and eradication of Grey squirrel on the ground

The LIFE EC-SQUARE project had the purpose to develop methods to eradicate or control grey squirrel (*Sciurus carolinensis*) populations in different socio-ecological contexts. This was integrated with societal assessments to investigate and shape public perceptions of the general problems posed by alien species and, in particular, in the case of the grey squirrel. A major challenge for a successful eradication and/or control campaign is to obtain a wide consensus of the civic society for control measures. This is especially the case when it is needed to intervene on a species whose presence is not considered a menace by the general public, and that, on the contrary, has a positive appeal in some contexts like (sub)urban parks. Developing and carrying out specific control methods linked to local public perception of the alien species, allowed us to test the efficacy of innovative methods under different local contexts and to introduce new alien species management strategies that will be made available to policy makers and stakeholders at the national and international level.

The LIFE project has addressed for the first time in a coordinated manner the management of an introduced species present in Italy with numerous populations. The grey squirrel has a strong emotional impact on citizens and therefore interventions involving the capture and killing of animals are not easy to propose and gain acceptance from stakeholders and citizens in general. The project has developed techniques to manage introduced species in different socio-ecological context. Communication activities aimed at increasing among citizens awareness of problems caused by introduced species on biodiversity, in particular by the grey squirrel have been conducted at a large scale (i.e. local, regional and national).

After the monitoring process, the Task Force of the project set out the goal to achieve, with activities that need to continue after the end of EC-SQUARE, the eradication of grey squirrel populations, or when the populations are too large, implement a long-term control campaign. Within the LIFE project we achieved some important milestones.

- The procedures to authorize the activities necessary to catch, euthanize or sterilize the animals, that involved Authorities from regions, provinces and regional parks and ISPRA, were evaluated legally during three appeals to the Regional Administrative Court and two appeals to the State Council presented by opposition groups, demonstrating their accuracy. This authorization process will then be adopted as a model of reference in similar situations.
- The intervention conducted in Genova Nervi is the first project in Italy for the eradication of a population of an introduced species through live-capture and surgical sterilization of animals and one of the first in the world. The project is characterized by strong aspects of innovation compared to traditional methods of eradication. The LIFE project had planned from the beginning the possibility to use surgical sterilization, as an alternative to euthanasia in certain social and ecological situations. Grey squirrels have a strong 'appeal' to the public and in urban parks they easily establish an 'affective' bond between citizens and animals. This makes it impossible to proceed with capture and euthanasia of squirrels without generating very strong opposition that could block the project through e.g. demonstrations, threats to the operators in the field, damage to materials, strong campaigns of intimidation, etc. For this reasons the proposition of eradication techniques that do not involve killing animals can be more readily acceptable by citizenship.

From the outset it was clear that such interventions are feasible with populations confined in small areas and not too numerous. This is because the costs of capturing animals and their sterilization are far higher comparing with those of euthanasia. These are related to the veterinary sterilization procedures and to a greater extent to the organizational complexity of the operations. A complete analysis of costs compared to more traditional management options is in progress.

The removal of grey squirrels has resulted in benefits for the conservation of the red squirrel; some are already quantifiable, others should be evaluated in the long-term, also in relation to the continuation of the actions initiated by EC-SQUARE. The positive effect of the actions taken is evidenced by the ongoing process of re-colonization by the red squirrel of areas where grey squirrels were removed.

These are the main results obtained:

- We estimated 3,000 hectares of forest areas where the removal of grey squirrels allowed an early recolonization by red squirrels. These areas can potentially host about 1500-3000 red squirrels (density 0.5-1 ind. / ha).
- The almost complete eradication of the grey squirrel in Genova Nervi and in the surrounding areas, where trapping continues to remove the last few animals. The eradication of the grey squirrel in Genoa ensures the conservation of the red squirrel in the Ligurian Apennines behind Genoa, and more in general the Northern Apennine, where the species would be at risk of local extinction because of the spread of grey squirrels from Nervi.
- The start of activities aimed at the eradication of alien squirrels in 4 macro areas (out of eight in total) in Lombardy; one a few kilometers from Switzerland. These activities are aimed at avoiding a large-scale extinction of the red squirrel and the colonization of North Italy and Switzerland by alien squirrels. The activities will continue in the post-LIFE
- Activities began in Piedmont to control the largest grey squirrel population in Italy; the activities will continue in the post-LIFE. In this case it was important to have taken over the management of the grey squirrel in this region, where a first eradication trial was blocked in 1997 by animal right groups.

Among the social effects, the project has focused greater awareness at the local and national scale on problems related to the introduction of alien species and the impact that these exert on ecosystems and biodiversity. The management of non-native species in the coming years will be the focus of conservation activities in Europe. Interventions to control and eradicate non-native species will increase in the future thanks to the application of the new European Regulation on alien species. This activity requires the social acceptance of interventions that foresee the removal of the animals and their suppression. From this point of view, EC-SQUARE has been a pilot project since it takes over the management of an exotic and 'charismatic' species with a strong emotional impact on the audience. The dissemination activities focused on different levels, from the public and local stakeholders to national. The high media attention on the project, with a press article on average every week for four years, testifies the critical nature of the topics addressed. At the beginning of the project many articles published in the media questioned the actual existence of competitive phenomena between grey and red squirrels, presenting the LIFE project as an unnecessary waste of money because the red was not endangered by the presence of the American species, but rather because of 'persecution by man'. During the project, as a result of dissemination activities and meetings with the public and journalists themselves, the contents of the articles changed, and almost all journalists and stakeholders now recognize the risks associated with the presence of grey squirrels. This is an important result, because the scientific basis of the intervention (interspecific competition between grey and red squirrels causes extinction of the latter) has become, thanks to EC-SQUARE, a phenomenon recognized by the mass media and by the public in general. That it can become, in some cases, even necessary to kill animals to preserve biodiversity, is becoming an acquired awareness in an increasing portion of the society.

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09th July 2015