

Sandro Bertolino, Andrea Balduzzi, Andrea Marsan, Damiano Preatoni, Lucas Wauters, Elisabetta Rossi and **Adriano Martinoli** *Task Force LIFE EC-SQUARE*













The LIFE EC-SQUARE project in brief

Duration: From 01 September 2010 to 31 March 2015
Total budget: € 2.001.113,00 (EC co-financing 45.43%)
Coordinating beneficiary: Regione Lombardia (Italy)
Other partners: Regione Piemonte, Regione Liguria,
Università degli Studi dell'Insubria, Università degli Studi di
Torino, Università degli Studi di Genova, Istituto Oikos
(Italy)

Target species: Sciurus carolinensis and Callosciurus erythraeus (Mammalia, Rodentia, Sciuridae) - now both included in the Regulation (EU) 1143/2014 [Regulation (EU) 1141/2016 of 13 July 2016]

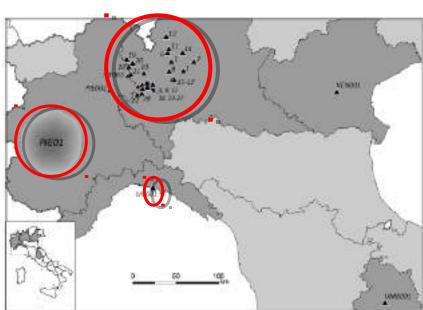
More info on web site: www.rossoscoiattolo.eu

ROSSO SCOIATTOLO
PER LA BIODIVERSITÀ

Background (before 2010)...

Our areas of intervention are located in a geographical context with high anthropic presence in Northern Italy: high tendency to an aesthetic approach to species (rather than a functional one) – the importance of communication and public opinion involvement







Background (before 2010)...

Psychological block of public administrations, consequence of the Saluzzo Justice Court intervention in 1997 to stop the first trial (evaluation of techniques) to eradicate the grey squirrel in Piedmont – the importance of technical training

what are other words for psychological block?



hang-up, inhibition, mental block, block, difficulty, repression, reservation, neurosis, phobia, preoccupation



During the early stages of the project...

Attempts to stop the project, a record (for a LIFE project...):

- ➤ 3 appeals to the Administrative Regional Court (TAR) of Piedmont and Liguria
- ➤ 2 appeals to the State Council and interpellations to the Government (Senate and Chamber)
- Questions to the Regional Councils of Lombardy, Piedmont and Liguria
- ➤ discussions with the Environment Commission of the Province of Milan with public audition
- Documentation (deeds) access requests to the three Regions, Provinces, Parks, Università dell'Insubria
- Local and national petitions and various mail-bombing campaigns
- > A petition to the European Parliament

In addition, acts of widespread vandalism and intimidation (e.g. photos of members of the Task Force and other operators on web with indication of the role of "squirrel killers")...

Do they want to kill the Nervi squirrels?

Empathetic vs. functional perception: an animal species can induce profound and different attitudes in the public opinion.



During the final stages of the project...

...thanks to a careful strategy that made it possible to analyze all the possible criticalities in advance, every attempt to stop the project failed and consequently strengthened it...

The 1997 psychological block has finally been removed... perhaps it is one of the greatest achievements of the EC-SQUARE LIFE Project



Now we can... talk about alien species eradication without being censored, thanks to:

- > 88 meetings with stakeholders
- > 57.000 visit to the web site (131.000 as of today)
- > 100.000 contacts on facebook
- More than 200 articles on newspapers and magazines
- > 30.000 copies of a brochure
- More than 3.000 students involved

FREEDOM OF SPEECH

SQUIRREL



ERADICATION

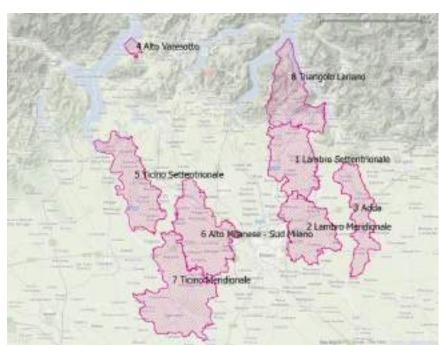
Ministerial Decree banning grey squirrel (*Sciurus carolinensis*) and Pallas's squirrel (*Callosciurus erythraeus*) from pet trade, issued also thanks to the technical support of the EC-SQUARE project



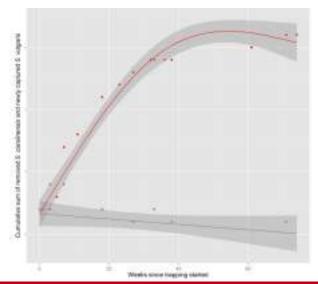
Decreto interministeriale 24 dicembre 2012 - Detenzione e commercio di alcune specie

Some nuclei of alien squirrels have been removed in Lombardy.

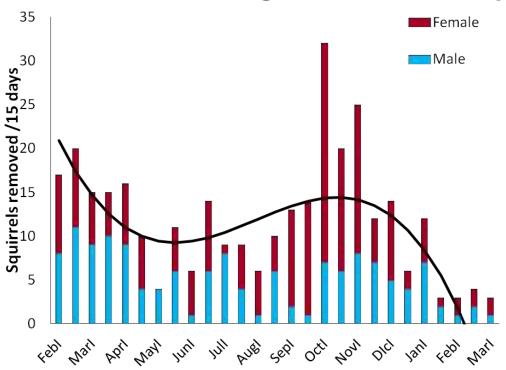
The Callosciurus erythraeus population (at about 5 km from Switzerland) is strongly reduced (and shortly will be completely eradicated)



Good news! Where grey squirrels are removed red squirrels are coming back!



The grey squirrel urban population in Genoa Nervi Park is almost eradicated and activities are ongoing (by surgical sterilization as a mediation with local public opinion... possibly the first case in the world of "postponed" eradication through sterilization)



Eradication activities should be transformed into routine activities, involving not only trappers but also other staff an stakeholders, also by increasing the interest of private sectors (e.g. pest control companies etc.).



In the case of very small populations living in urban parks, for which euthanasia could induce hostility due to the strong affection feelings towards squirrels, the "removal" could be made by surgical sterilization, much more expensive and complicate to organize, but more easily acceptable by citizens. Animal welfare groups must participate in the financing of these activities which, in terms of costs / benefits, are less beneficial for the communities.

You can't have your cake and eat it too.... [In italiano: "non si può avere la botte piena e la moglie ubriaca". Antico detto popolare]



Resources are currently too scarce.

Need to search for possible uses of trapped animals and not just consider them as a cost (e.g. disposal), to reduce eradication cost.

Need to involve more people in trapping with recognized professionalism.





Interventions are expensive and resource demanding. New technical solutions are needed. A possible short-term solution would be the use of automatic traps (in areas of exclusive IAS presence) such as the New-Zealand model; the possibility for correct and safe use of rodenticides (in areas of exclusive IAS presence) must be considered.



LIFE project also as a tool for deepening knowledge...

- MARTINOLI A., BERTOLINO S., PREATONI D., BALDUZZI A., MARSAN A., GENOVESI P., TOSI G., WAUTERS L.A., 2010. Headcount 2010: the multiplication of the grey squirrel introduced in Italy. Hystrix It. J. Mamm., 21(2): 127-136 (DOI: 10.4404/Hystrix-21.2-4463).
- ROMEO C., WAUTERS L., FERRARI N., LANFRANCHI P., MARTINOLI A., PISANU B., PREATONI D.G., SAINO N., 2014. Macroparasite fauna of alien grey squirrels (Sciurus carolinensis): composition, variability and implications for native species. PLoS ONE 9(2): e88002. doi:10.1371/journal.pone.0088002
- BERTOLINO S., CORDERO DI MONTEZEMOLO N., PREATONI D.G., WAUTERS L.A., MARTINOLI A., 2014. A grey future for Europe: Sciurus carolinensis is replacing native red squirrels in Italy. Biological Invasion, 16(1): 53-62 (doi: 10.1007/s10530-013-0502-3).
- ROMEO C., FERRARI N., ROSSI C., EVEREST D., GRIERSON S., LANFRANCHI P., MARTINOLI A., SAINO N., WAUTERS L., HAUFFE H., 2014. Ljungan Virus and an Adenovirus in Italian Squirrel Populations. Journal of Wildlife Diseases, 50(2): 409-411 (doi: 10.7589/2013-10-260).
- ROMEO C., WAUTERS L., CAUCHIE S., MARTINOLI A., MATTHYSEN E., SAINO N., FERRARI N., 2014 Faecal egg counts from field experiment reveal density-dependence in helminth fecundity: Strongyloides robustus infecting grey squirrels (Sciurus carolinensis). Parasitology Research. 113(9): 3403-3408 (doi: 10.1007/s00436-014-4005-7)
- ROMEO C., FERRARI N., LANFRANCHI P., SAINO N., SANTICCHIA F., MARTINOLI A., WAUTERS L., 2015. Biodiversity threats from outside to inside: effects of alien grey squirrel (Sciurus carolinensis) on helminth community of native red squirrels (S. vulgaris). Parasitology Research, 114(7): 2621-2628 (doi 10.1007/s00436-015-4466-3).
- SANTICCHIA F., ROMEO C., GRILLI G., VEZZOSO S., WAUTERS L.A., MAZZAMUTO M.V., MARTINOLI A., FERRARI N., 2015. The use of uterine scars to explore fecundity levels in invasive alien tree squirrels. Hystrix, the Italian Journal of Mammalogy, 26(2): 95-101 (doi:10.4404/hystrix-26.2-11428)
- MAZZAMUTO M.V., PANZERI M., WAUTERS L.A., PREATONI D.G. MARTINOLI A., 2015 Knowledge, management and optimization: the use of live traps in control of non-native squirrels. Mammalia, 80(3): 305-311 (doi: 10.1515/mammalia-2015-0006).
- MAZZAMUTO M.V., GALIMBERTI A., CREMONESI G, PISAUIS B, CHAPUIS JL, STUYCK J, AMORI G, SU HJ, ALOISE G, PREATONI DG, WAUTERS LA, CASIRAGHI M, MARTINOLI A., 2016. Preventing species invasion: a role for integrative taxonomy? Integrative Zoology, 11(3): 214–228 (doi: 10.1111/1749-4877.12185).
- MAZZAMUTO M.V., PISANU B., ROMEO C., FERRARI N., PREATONI D., WAUTERS L.A.; CHAPUIS J.L., MARTINOLI A., 2016 Poor parasite community of an invasive alien species: macroparasites of Pallas's squirrels in Italy. Annales Zoologici Fennici, 53 (1-2): 103-112 (doi: 10.5735/086.053.0209)
- STEKOLNIKOV A.A., BALLARDINI M., MIGNONE W., SCAPIN P., ULBANO M., MARSAN A. & BALDUZZI A., 2014. First finding of the chigger mite *Neotrombicula talmiensis* (Acari: Trombiculidae) in Italy. International Journal of Acarology, 40 (6): 419-420 (doi: 10.1080/01647954.2014.942361)

















