



European mink in France

Current knowledge and conservation strategy

Y. Bressan¹, M. Fayet¹, A. Perrault², J.-B. Pons³, N. Pons³, E. Laoué⁴, R. Beaubert⁵, C. Bellanger¹
Contact: yoann.bressan@oncfs.gouv.fr



33rd European Mustelid Colloquium
Lisbon, Portugal, 8-11 October 2019

¹ Office National de la Chasse et de la Faune Sauvage (ONCFS)

² Direction Régionale de l'Environnement de Nouvelle Aquitaine (DREAL)

³ NGO Cistude Nature

⁴ Groupe de Recherche et d'Étude pour la Gestion de l'Environnement (GREGE)

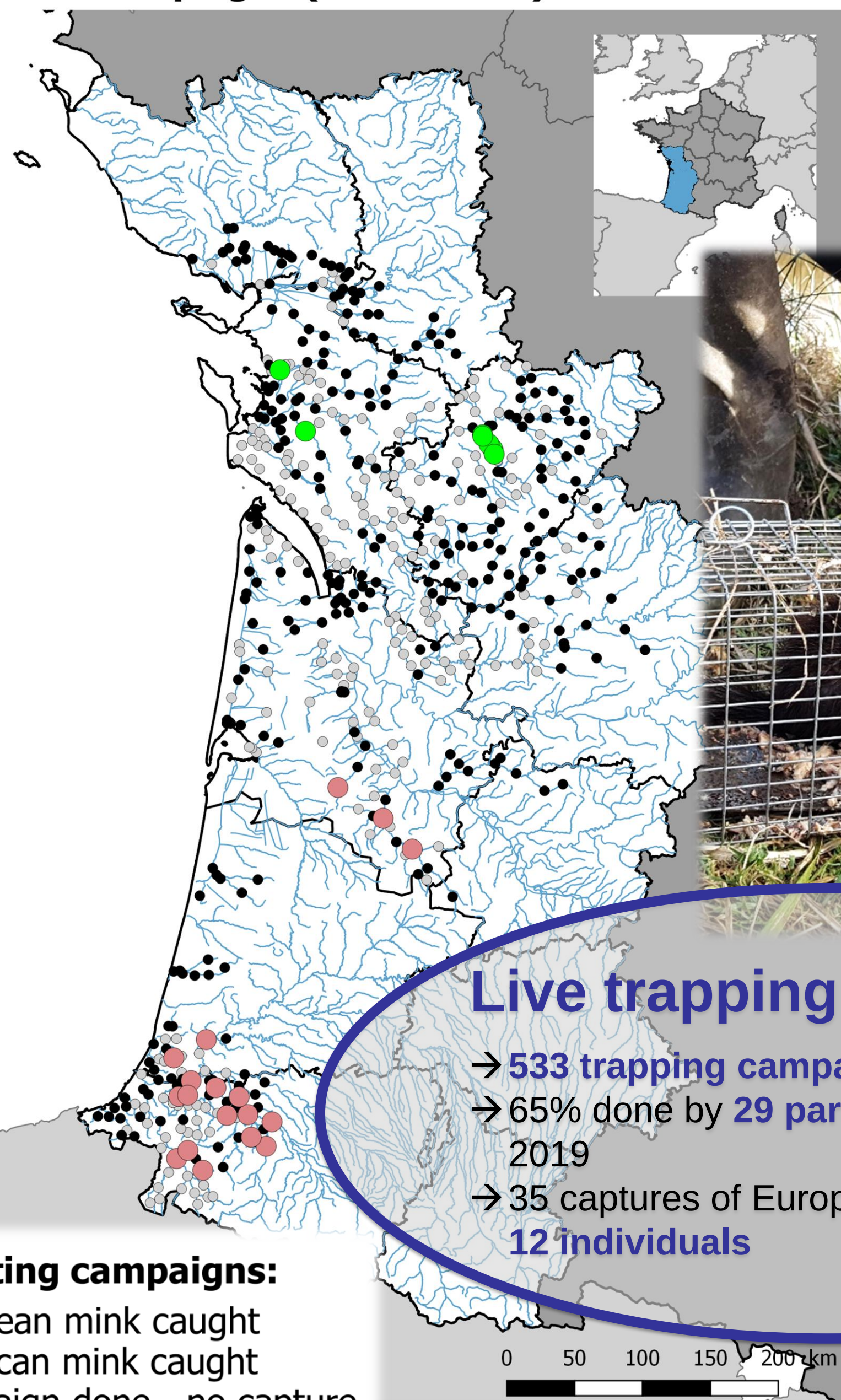
⁵ NGO Ligue pour la Protection des Oiseaux (LPO)

Last hope for the most threatened European mammal?

European mink (*Mustela lutreola*) is classified as “critically endangered” by IUCN since 2011. France hosts one of the last wild populations, giving a key role for its conservation.

Despite two previous National Action Plans (NAP) between 1999 and 2011, the population continued to decline. Since 2015, the French government reinforces its actions through a new NAP, combining knowledge and management actions involving numerous partners. A LIFE programme (2017-2022) implements concurrently further actions in the population heart on the Charente basin.

Current situation of the European mink prospecting campaigns (March 2019)



Live trapping reactivation

- 533 trapping campaigns planned
- 65% done by 29 partners from 2016 to 2019
- 35 captures of European minks – at least 12 individuals

Toward a unique and collaborative database

- Data validation protocol
- Database created with data from previous National Action Plans
- Network of numerous partners collecting opportunistic data (other existing databases, local trained volunteers...)
- Opportunities to collect important data like the accidental capture of an European mink in Bayonne in March 2019 (first data since 14 years)

Updating distribution map and population monitoring

Development of non-invasive monitoring methods

- Environmental DNA metabarcoding: tested in 2015-2016, bad detection of semi-aquatic carnivores
- Footprint tunnels + hair-traps: tested in proven presence areas, usable throughout the year, needs 3 less time than trapping for similar detection (possible repetitions)
- Camera-traps: tests combined with tunnels, promising first results, less time than trapping
- Scat detection dogs: tests ongoing since 2017, promising but practical difficulties

Reintroduction and/or reinforcement strategy

- Definition of a conservation strategy
- Choice for releases into the wild?

Ex situ conservation and breeding programme

Breeding programme

- Two functional breeding centres: Calviac zoological reserve (3 ♀ - 3 ♂) and Zoodyssée (5 ♀ - 7 ♂)
- First success with 4 pups born in Zoodyssée in 2019

Conservation strategy for European mink

Limitation of accidental mortalities during pest control (i.e. coypus)

- Reactivation of the local coordinators network
- Fighting methods control: “Mink’s hole” for escaping during reproduction season, limitation of bromadiolone use

Fight against identified main threats

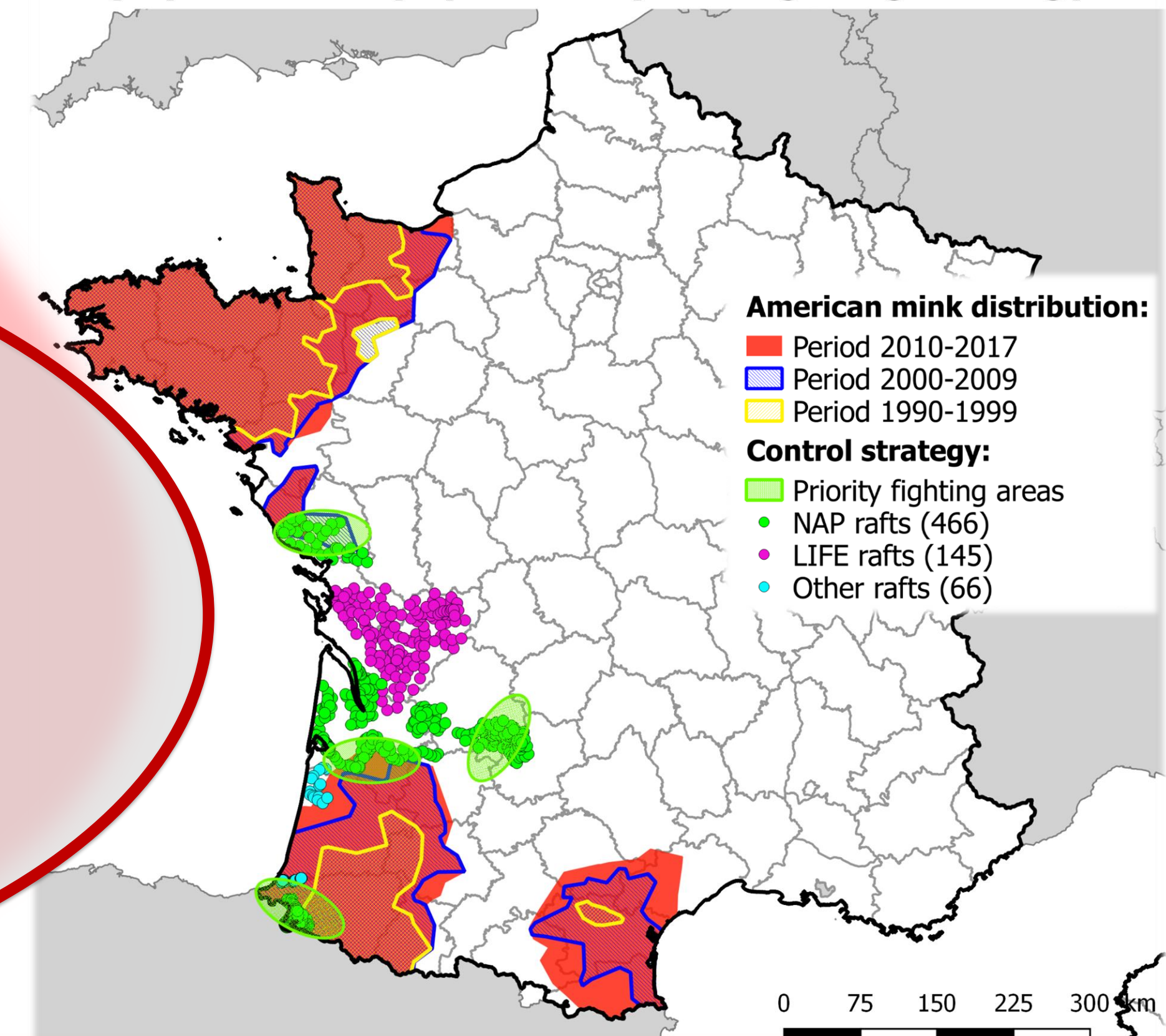
Habitat improvement

- Habitat management: launch of a “good practices guide” update, Natura 2000 managers involvement, parcels purchase, habitat restoration, refuge areas creation
- Roadkill black points: ranking cartographic methodology, works in progress in different places (nearly 210 hydraulic bridges regualified or secured by department councils 16, 17, 33, 40 or large infrastructures managers, diagnosis in department 24...)

American mink population control

- Expansion monitoring: publication of a distribution map updated with data collected within a national trappers and other partners survey
- Listed as Invasive Alien Species in France in 2018
- Definition and implementation of a control strategy with local partners between 2015 and 2019: 466 mink rafts deployed in priority fighting areas (40 individuals caught), 211 deployed as part of other programmes (LIFE, compensatory measures... 43 individuals caught)
- Farms securisation: definition of a control protocol applied in the 2 existing farms in NAP area (2017-2018)

Evolution of the American mink distribution 1990-2017 (reproductive populations) and fighting strategy



Toward the 3rd National Action Plan: a better knowledge to improve actions implementation

- Populations: long-term distribution monitoring, dynamics, genetics and potential internal threats (sanitary...)
- External threats: American mink impact and dynamics, increase of habitat suitability, reduction of accidental mortality risks
- Conservation strategy: reproduction and breeding optimisation, preparation of releases into the wild

Bibliography:
DREAL & ONCFS 2015. Programme intermédiaire en faveur du Vison d'Europe (2015-2017). Available on: <http://www.nouvelle-aquitaine.developpement-durable.gouv.fr/le-vison-d-europe-a10771.html>.
Léger F., Steinmetz J., Laoué E., Maillard J.-F. & Ruette S. 2018. L'expansion du vison d'Amérique en France – Période 2000-2015. Faune Sauvage 318: 23-31.

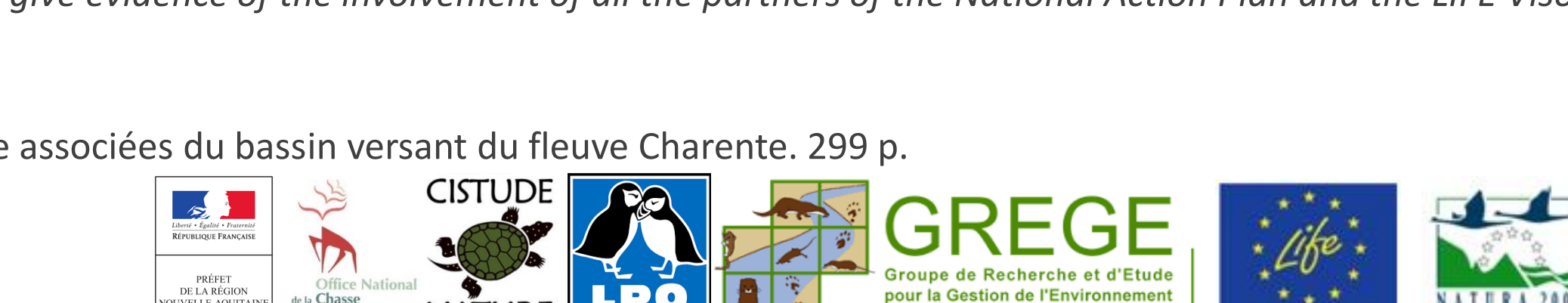
LPO, GREGE & Conseil Départemental de la Charente-Maritime 2017. LIFE Nature et Biodiversité – LIFE 16 NAT/FR/000872 – LIFE MAMMAQ : Conservation du Vison d'Europe et des espèces d'intérêt communautaire associées du bassin versant du fleuve Charente. 299 p.

ONCFS 2018. Note relative à la présence et à la répartition du Vison d'Europe. December 2018.

ONCFS 2019. Evaluation du Plan National d'Actions intermédiaire 2015-2018 en faveur du Vison d'Europe (*Mustela lutreola*). October 2019.

Steinmetz J., Ruette S., Ruys T., Jean P. & Dejean T. 2018. Vers une nouvelle méthode de détection de mammifères semi-aquatiques : étude pilote et approche « Metabarcoding ADNe ». Faune Sauvage 319: 11-17.

Acknowledgement: these results give evidence of the involvement of all the partners of the National Action Plan and the LIFE Vison.



Photographies credits: Y. Barret, N. Delieu, GREGE, LIFE VISON, LPO, ONCFS, Y. Ronchard, J. Steinmetz, P. Verdelgoux, Zoodyssée-Conseil Départemental 79.