

Évolution des connaissances herpétologiques au Grand-Duché de Luxembourg



Lionel L'Hoste, **Xavier Mestdagh** (LIST)
Roland Proess (ECOTOP)

Optimisation des comptages des tritons par l'utilisation d'un piège photographique aquatique



Bruno Cornette, Yoann Didry, Lionel L'Hoste,
Xavier Mestdagh, Frank Minette, Jenny Renaut,
Thomas Tamisier, Valérie Toniazzo (LIST)

Journée des observateurs Raïne
Marche-en-Famenne, 11/02/2018

— **12 + 1 amphibiens**



Atlas: Proess et al. (2016). FERRANTIA 75

Hyla arborea

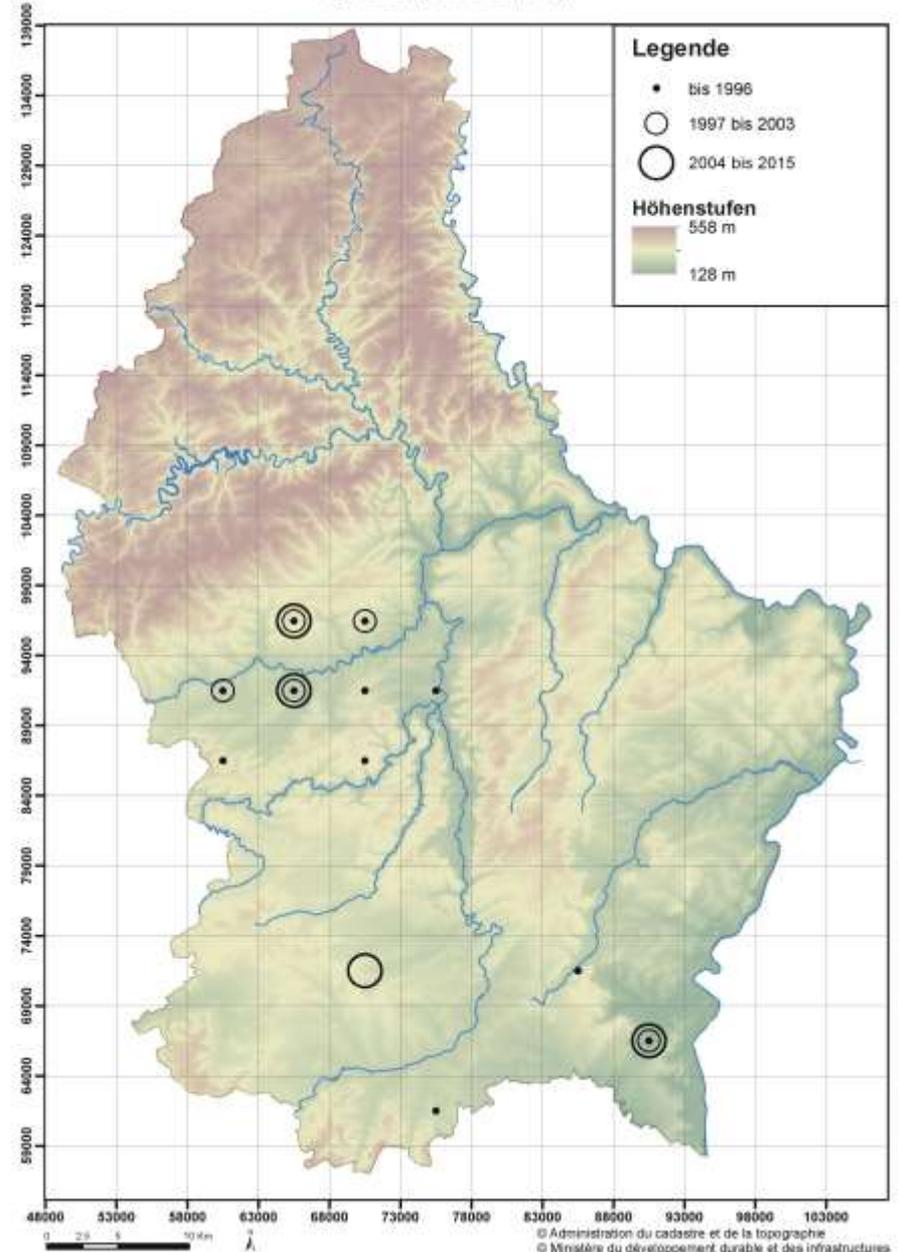


Monitoring:

- Pop. existantes:
 - 1x/an mâles chanteurs
 - 1x/an juveniles
- Recherches de présence

Verbreitung des Europäischen Laubfrosches

Hyla arborea (LINNAEUS, 1758)



Re-introduction of Hyla arborea in
Bertrange & Useldange
(Survey realized by SICONA)

	2012 (juveniles)	2013 (juveniles)	2014 (juveniles)	Total (juveniles)
Bertrange	500	252	198	950
Useldange	600	334	181	1115

Bertrange: 105 calling males in 2017
colonisation of ponds distant
900 m
1.000 m
1.300 m
1.900 m
2.900 m
from reintroduction pond

Useldange: 76 calling males in 2016

Epidalea calamita

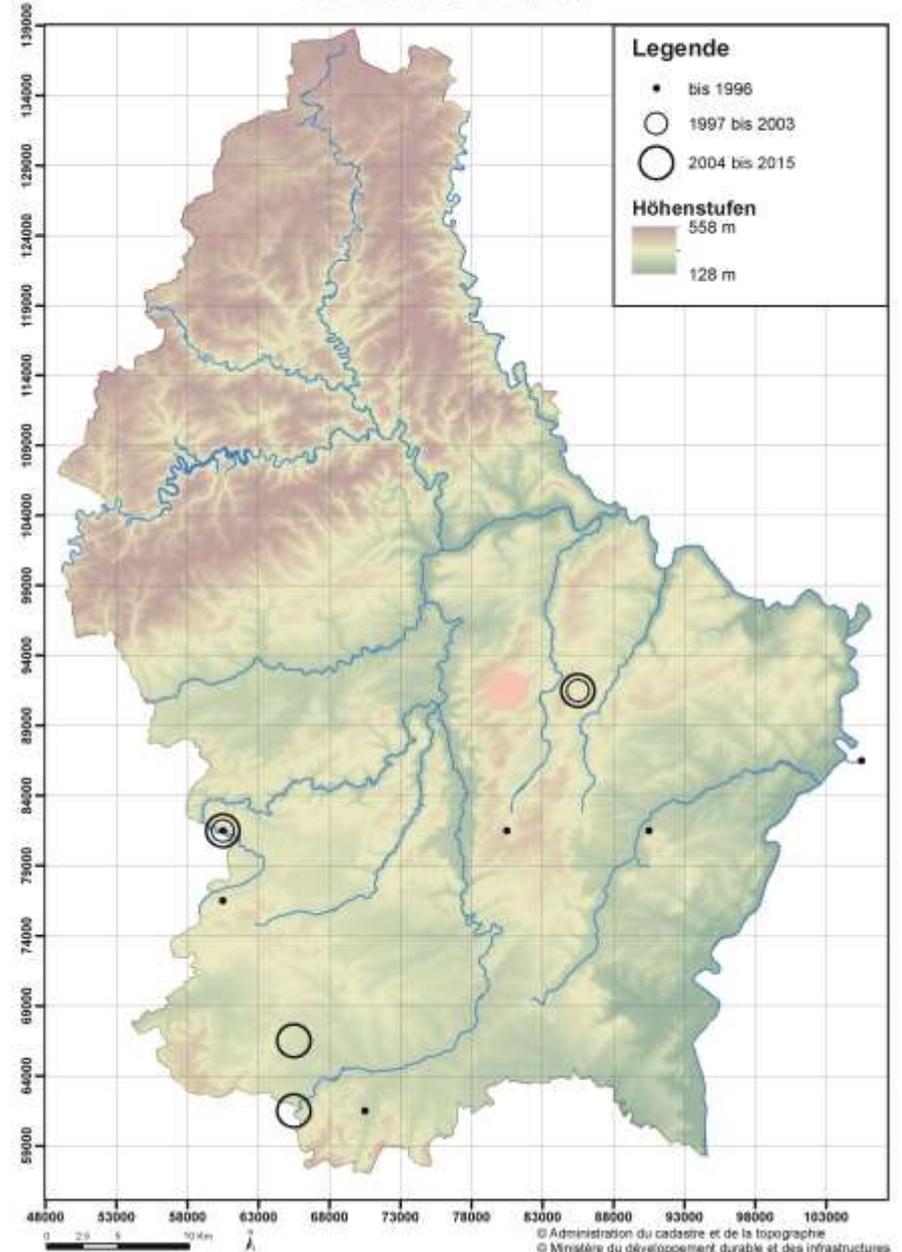


Monitoring:

- Pop. existantes:
 - 1x/an mâles chanteurs
 - 1x/an larves/oeufs
- Recherches de présence
- Renforcements/introductions

Verbreitung der Kreuzkröte

Epidalea calamita (LAURENTI, 1768)



Bombina variegata

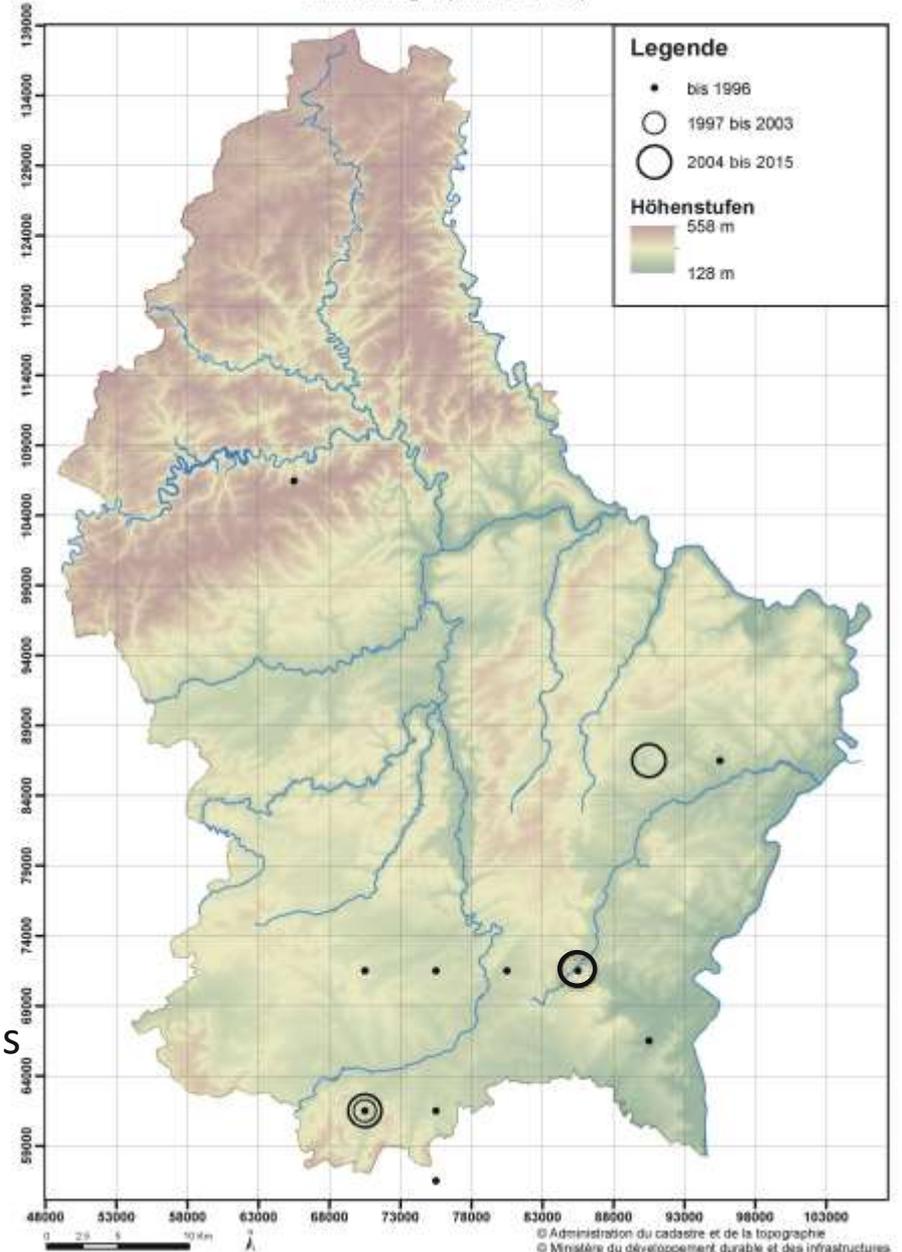


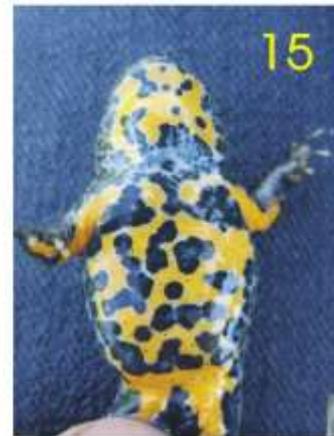
Monitoring:

- Pop. existantes :
 - 1x/an adultes/subadultes
- Recherches de présence

Verbreitung der Gelbbauchunke

Bombina variegata (LINNAEUS, 1758)





Alytes obstetricans



Monitoring:

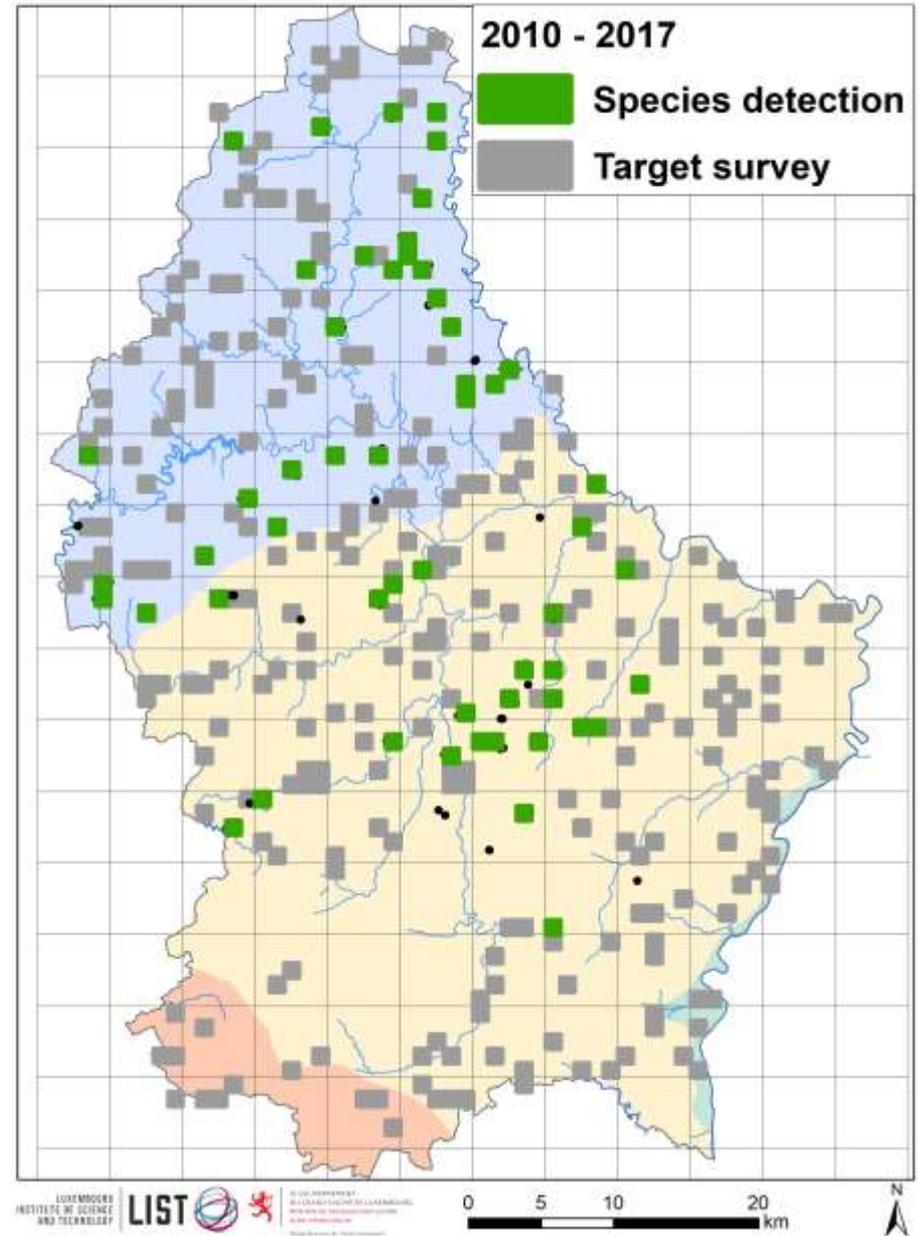
- 1x/an mâles chanteurs
- rotation de 3 ans

2010-2017:

Recherche dans 338 sites
Détection dans 54 sites, dont 25
“nouveaux”

SO et SE = “No-Alytes land”

Common Midwife Toad (*Alytes obstetricans*)



Triturus cristatus



Monitoring:

- 1x/an nasse
- rotation de 3 ans

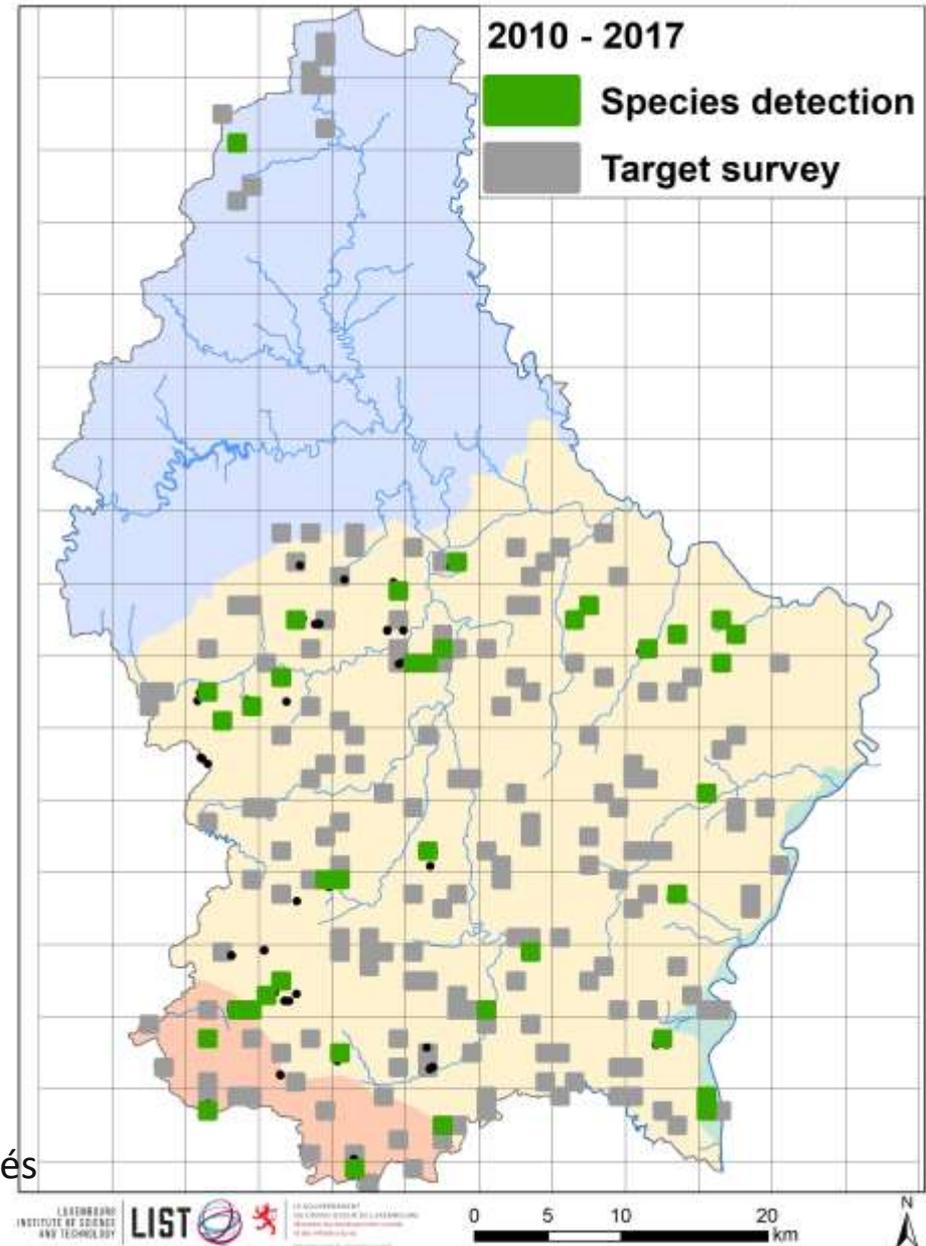
2010-2017:

Recherche dans 239 sites

Détection dans 37 sites dont :

- 7 "nouveaux"
- 30 sites "historiques" confirmés
- 14 sites "historiques" non confirmés

Great Crested Newt (*Triturus cristatus*)



6 + 1 reptiles



Atlas: Proess et al. (2018). FERRANTIA xx

Lacerta agilis



Monitoring :

- 2 à 3x/an
- rotation 3 ans

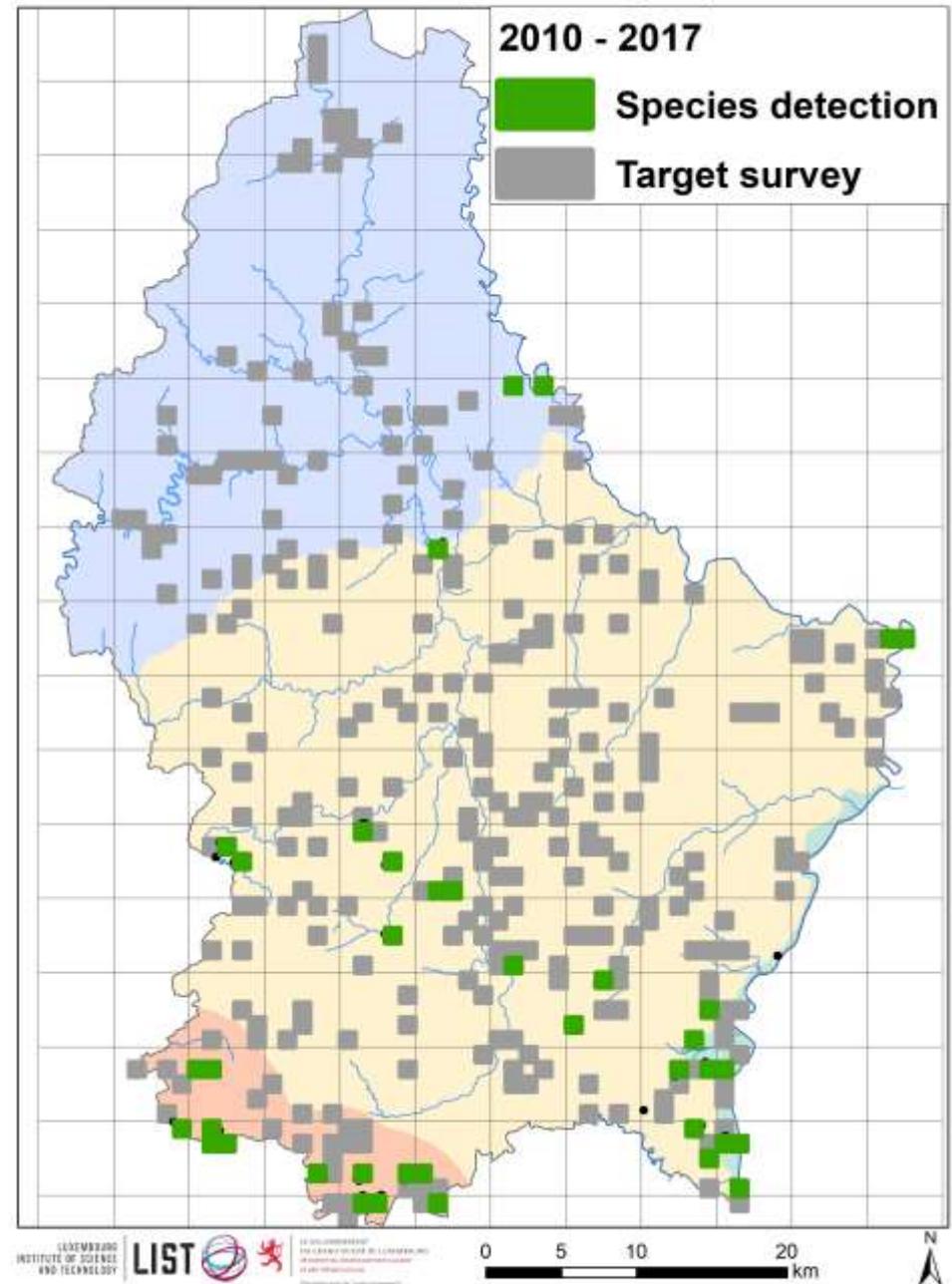
2010-2017 :

Recherches dans 380 sites

Espèce détectée dans 38 sites :

- 21 “nouveaux”
- 17 “historiques” confirmés
- 14 “historiques” non confirmés

Sand Lizard (*Lacerta agilis*)



NEWTRAP

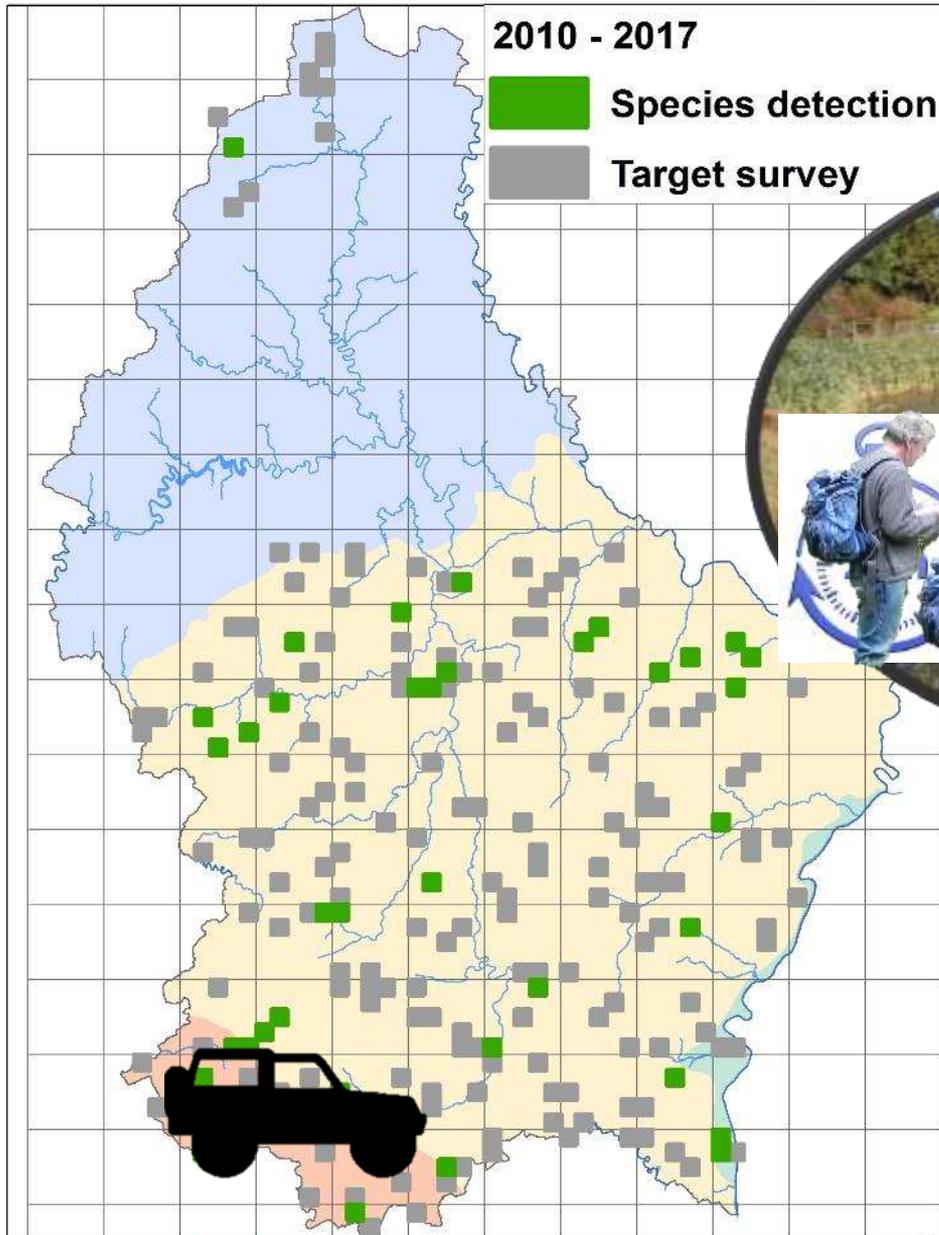
Piège photo pour triton



LUXEMBOURG
INSTITUTE OF SCIENCE
AND TECHNOLOGY



Great Crested Newt (*Triturus cristatus*)



Une CMR c'est...



... beaucoup de travail !

Triturus superspecies cristatus

Group: Amphibians & Reptiles Name: Triturus cristatus Bio-region: All bioregions

Filter: View data sheet info Audit trail (empty)

Current selection: Amphibians & Reptiles, Triturus cristatus. All biogeo zones: Annex: II, IV. Show all Amphibians & Reptiles

ETC/BD treated member states' data

MS	Bio	Range (km ²)				Population				Habitat (km ²)				Future prosp.	Overall asses.	Gridded maps (km ²)				Quality		
		Surface	%XR	Trend	Ref.	Size&Unit	%XP	Trend	Ref.	Area	%XH	Trend	Suitable			Range	%GR	Distrib.	%GD	Range	Population	Habitat
AT	ALP	3000	10	X	-3000	800 - 8000 indiv	N/A	-	>8000	300	29	-	300	Bad	U2	6273	10.2	3631	10.1	M (09/2007)	P (09/2007)	P (09/2007)
DE	ALP	1987.26	6.6	X	1987.26	5 - (5) x	N/A	X	5	648.75	82.7	-	648.75	Bad	U2	9320	15.2	3059	8.5	M (1990-2006)	P (1990-2006)	P (1990-2006)
FR	ALP	2628	8.3	-	>2628	10 - 34 x	N/A	-	>34	N/A	N/A	N/A	N/A	Bad	U2	11400	18.6	4700	13.1	M (1990-2005)	M (1990-2005)	()
PL	ALP	9700	32.4	=	9700	(72) - 72 grids	N/A	-	N/A	N/A	N/A	-	N/A	Unk	U1	19300	31.4	9350	26.1	M (11/2006)	P (11/2006)	()
SK	ALP	12642	42.3	-	>12642	50 - 70 x	N/A	-	>70	86	8.3	-	300	Bad	U2	15096	24.6	15096	42.1	M (12/2006)	M (12/2006)	M (12/2006)
BE	ATL	11852	3.3	-	15848	157 - 157 grids	N/A	-	>>157	N/A	N/A	X	N/A	Bad	U2	20300	4	14400	5	G (2000-2006)	G (2000-2006)	P (2006)
DE	ATL	60195.59	16.9	-	60320.59	284 - (284) x	N/A	-	315	41909.25	64.1	-	45931.5	Good	U1	89530	17.8	56145	19.4	G (1990-2006)	G (1990-2006)	G (1990-2006)
DK	ATL	10924	3.1	X	-10924	N/A x	N/A	X	N/A	7293	14.6	X	N/A	Unk	XX	19400	3.9	17100	5.9	P (2005)	P (2005)	P (2005)
FR	ATL	95213	26.9	=	<95213	975 - 1997 x	N/A	=	<975	N/A	N/A	N/A	N/A	Poor	U1	158000	39.3	106000	36.7	M (1970-2006)	M (1990-2005)	P ()
NL	ATL	19800	5.6	=	>19800	878 - 1500 grids	N/A	=	>878	607	1.2	=	N/A	Poor	U1	19400	3.9	15400	5.3	M (1999-2005)	M (1999-2005)	M (1999-2005)
UK	ATL	157749	44.3	=	157749	75000 - 75000 loc.	N/A	-	100000	N/A	N/A	X	N/A	Good	U1	157100	31.2	79900	27.7	M (1980-2006)	P (2006)	P (05/2007)
EE	BOR	3000	0.9	-	5000	150 - 150 loc.	N/A	-	>150	1900	7.6	-	3000	Poor	U1+	210	0.1	190	0.3	G (2002-2006)	G (2002-2006)	G (2002-2006)
FI	BOR	30000	9.3	-	30000	72 - 80 x	N/A	-	72	80	6.3	-	100	Unk	U1	27943	9	4684	8.3	M (2000-2006)	G (2000-2006)	G (2000-2006)
LT	BOR	65000	20.2	=	-65000	3000 - 5000 indiv	N/A	+	>3000	200	0.8	+	1500	Good	U2	46900	15.1	5200	9.2	M (2006)	M (2006)	M (2006)
LV	BOR	64589	20	=	64589	45 - 45 loc.	N/A	X	50	22600	91	=	22600	Poor	U1	73900	23.8	3900	6.9	M (2006)	P (2006)	P (2006)
SE	BOR	159837	49.6	=	159837	400 - 800 loc.	N/A	-	1500	60	3.2	=	N/A	Good	U2	161600	52.1	42600	75.3	G (12/2006)	M (12/2006)	P (12/2006)
AT	CON	15000	3	X	-15000	4500 - 45000 indiv	N/A	-	45000	1500	0.6	-	1500	Bad	U2	18813	1.9	7426	1.5	M (09/2007)	P (09/2007)	P (09/2007)
BE	CON	4973	0.6	=	4973	90 - 90 grids	N/A	-	300	N/A	N/A	N/A	N/A	Poor	U2	8900	0.9	7100	1.4	G (1995-2006)	G (1995-2006)	()
CZ	CON	42263	5.1	=	44000	336 - 336 grids	N/A	+	350	42263	15	+	44000	Poor	U1-	69900	7.1	69900	13.9	M (12/2006)	M (12/2006)	M (12/2006)
DE	CON	277785.22	36.2	=	279185.22	1360 - (1360) x	N/A	-	1430	193976.25	73.3	-	200204.25	Poor	U1	325832	33	208038	41.4	M (1990-2006)	M (1980-2006)	M (1980-2006)
DK	CON	27060	3.3	X	-27060	N/A x	N/A	X	N/A	26794	10.1	X	N/A	Good	PV	48600	4.9	48300	9.6	P (2005)	P (2005)	P (2005)
FR	CON	77926	10.1	=	<77926	493 - 1135 x	N/A	-	<493	N/A	N/A	N/A	N/A	Bad	U2	168900	17.1	90300	17.9	M (1990-2005)	M (1990-2005)	P ()
LU	CON	1800	0.2	=	1800	47 - 47 loc.	N/A	+	N/A	30	0	+	N/A	Good	PV	3100	0.3	1700	0.3	G (1992-2006)	G (1997-2006)	P (1997-2006)
PL	CON	298800	36.9	X	N/A	(530) - 530 grids	N/A	-	N/A	N/A	N/A	-	N/A	Unk	U1	319700	32.4	59510	11.8	P (12/2006)	P (12/2006)	()
SE	CON	22297	2.9	=	22297	150 - 400 loc.	N/A	-	500	30	0	-	N/A	Poor	U2	24000	2.4	10800	2.1	G (12/2006)	M (12/2006)	P (12/2006)
FR	MED	250	106	=	-250	17 - 17 loc.	100	-	-17	N/A	N/A	-	N/A	Poor	U1	10100	100	3800	100	M (1970-2006)	M (1970-2006)	P ()
CZ	PAN	1383	8.4	=	1400	16 - 16 grids	N/A	=	>16	1382	30	=	1330	Poor	U1-	4800	10.1	4800	10.1	M (12/2006)	M (12/2006)	M (12/2006)
HU	PAN	15128.7	91.6	-	15128.7	41 - 41 loc.	N/A	X	41	3221.2	78	X	3221.2	Poor	U1-	42714	89.9	42714	89.9	P (1988-2006)	P (2006)	P (2006)

Missing population estimates

<https://bd.eionet.europa.eu/article17/speciessummary>

Notre solution

Patent Pending!

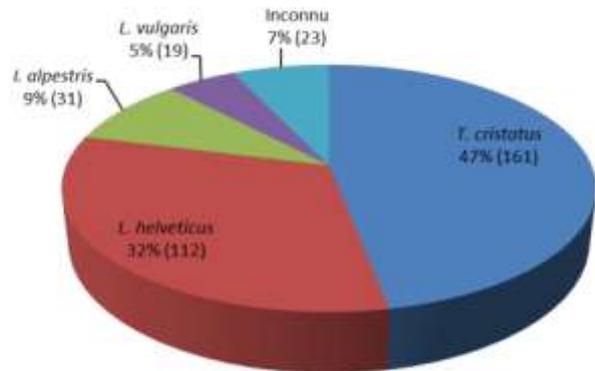




Nicolas Tytgat



Répartition des captures selon l'identification





Safer!



Pas piégés



Pas manipulés



Pas stressés



En 2016: 37 nuits d'observation sur 42 jours



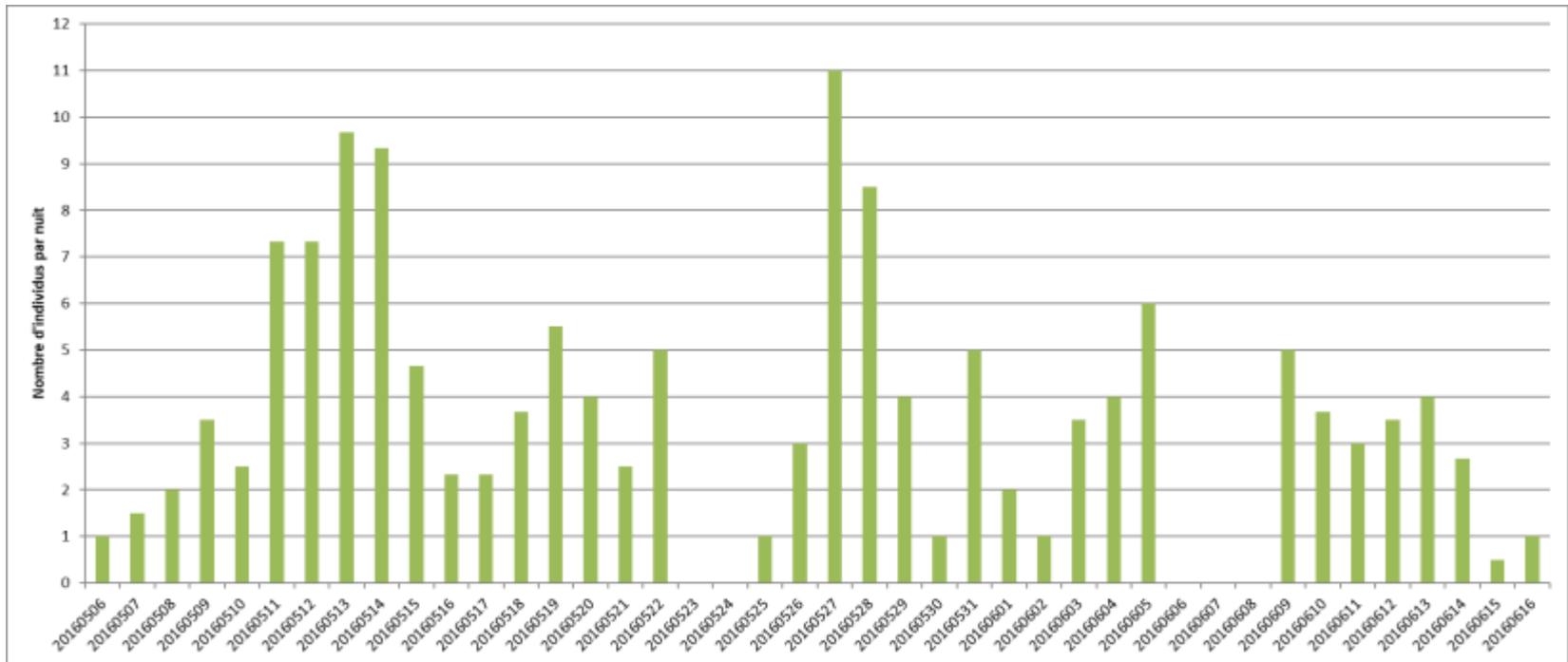
10 visites de terrain



40 visites de terrain auraient été nécessaires

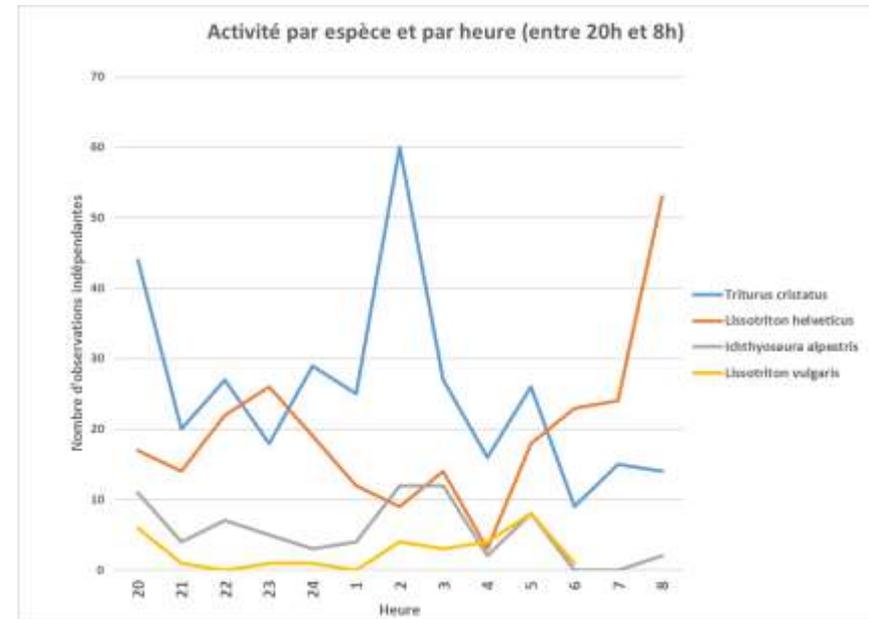
Safer!

Cheaper!





Safer!
Cheaper!
Higher quality data!





Safer!
Cheaper!
Higher quality data!
Flexibility!





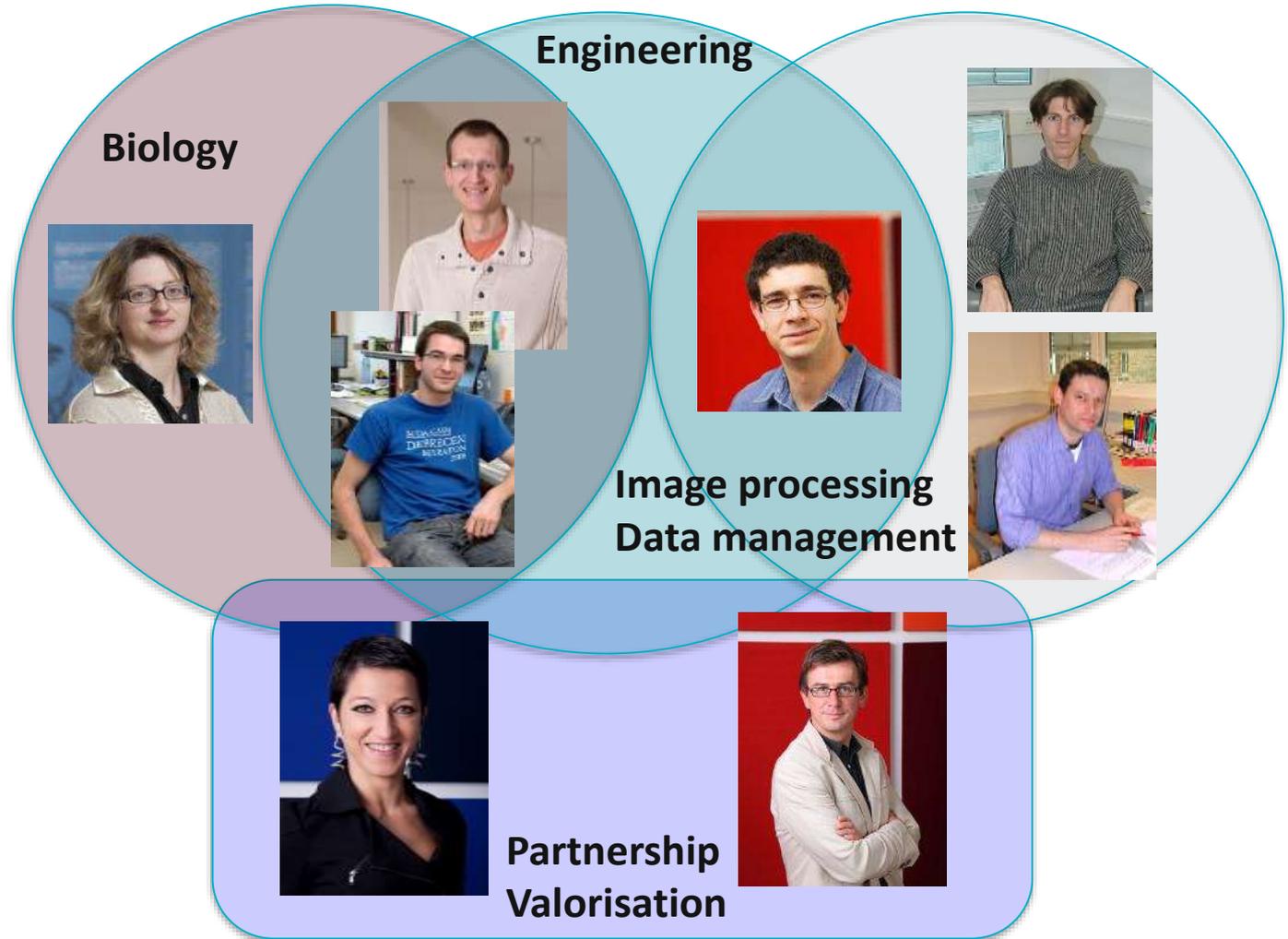
From “Live trapping”



... to “Camera trapping”



**Vous réalisez une CMR en 2018 ou 2019 ?
Vous désirez tester notre prototype ?
➔ Formulaire à l'entrée**





Bonne journée !