

<p>Nymphaea Folia naturae Bihariae</p>	<p>XXIX</p>	<p>145–201</p>	<p>Oradea, 2002</p>
---	-------------	----------------	---------------------

MAPPING OF TRANSYLVANIAN HERPETOFAUNA

IOAN GHIRA, MÁRTON VENCZEL, SEVERUS COVACIU-MARCOV, GYÖNGYVÉR MARA, PAUL GHILE, TIBERIU HARTEL, ZSOLT TÖRÖK, LEVENTE FARKAS, TIBERIU RÁCZ, ZENO FARKAS, TRAIAN BRAD

Abstract: Based on a survey of 1046 localities from Transylvania distributional map for 15 species of amphibians (*Salamandra salamandra*, *Triturus vulgaris*, *T. cristatus* complex, *T. alpestris*, *T. montandoni*, *Bombina variegata*, *B. bombina*, *Pelobates fuscus*, *Bufo bufo*, *B. viridis*, *Hyla arborea*, *Rana temporaria*, *R. dalmatina*, *R. arvalis*, *R. esculenta* complex) and 13 species of reptiles (*Emys orbicularis*, *Lacerta agilis*, *L. viridis*, *L. praticola*, *L. vivipara*, *Podarcis muralis*, *Anguis fragilis*, *Natrix natrix*, *N. tessellata*, *Coronella austriaca*, *Elaphe longissima*, *Vipera ammodytes*, *V. berus*) is generated. The typical habitat and status for each species is indicated.

INTRODUCTION

The most important papers referring to Romanian herpetofauna are the two volumes of Romanian Fauna, published in 1960 (Amphibia – by Fuhn) and 1961 (Reptilia – by Fuhn and Vancea). They group the information known at that time, gathered by foreign and romanian herpetologists starting with the middle of the 19-th century (Bielz, 1856, Kiritzescu, 1901, Mertens, 1923, Călinescu, 1931, Fejervary-Langh, 1943, Fuhn, 1940, 1952, 1953, 1955, Vancea, 1958, Vancea și Fuhn, 1959 etc.). These data are far from reflecting the actual distribution of herpetofauna, representing only about 5–10 % of the existing status.

Subsequent research, between 1961–1996, were discontinuous: about 20 papers concerning small areas herpetofauna (e.g. Micluța, 1970 – Fau-

RESULTS

The herpetofaunistical mapping in Transylvania have identified 15 amphibian and 13 reptile species.

Table 2 presents the number of localities in each district for each herps species and Annex 1 presents the 1046 localities with the species found in each locality.

CLS. AMPHIBIA

ORD. URODELA

Fam. Salamandridae

1. *Salamandra salamandra* L.1758 (fire salamander, salamandră)

Common in beech and oak forests and very rare in coniferous ones; occurs between 400 and 1400 m; it was found in 392 localities. Its areal is continuous in hilly and mountain region. The species is missing in almost all plain regions.

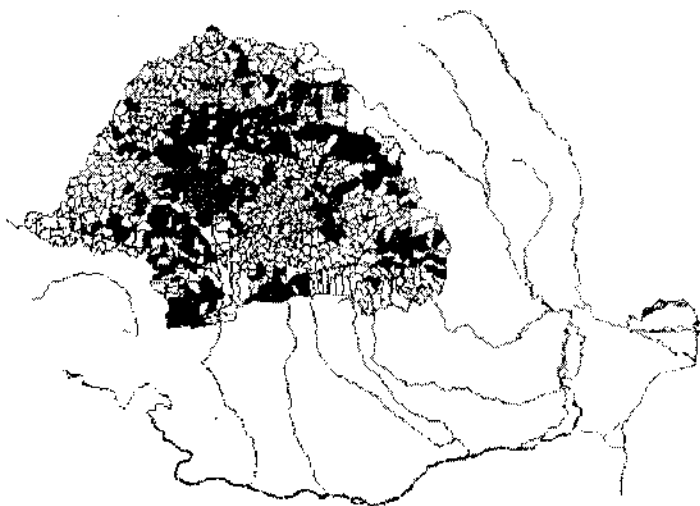


Fig. 1. New localities for *Salamandra salamandra* in Transylvania

2. *Triturus vulgaris* (Linnaeus) 1785 (Smooth Newt)

A species whose distribution is altitudinally limited, reaching approximately 1000 m. Usually it occurs together with *T. cristatus* in swamps, ditches, puddles, in plains and hills, but in a considerably reduced number in the mountain area. One exception – in Apuseni Mountains, in Platoul Padiş, it occurs at about 1400 m altitude in a large puddle, together with *T. alpestris*. In the studied area it was found in 449 localities. It must be

specified that it has been observed three living together newt species –*T. vulgaris*, *T. cristatus* and *T. alpestris*, – at about 8-900 altitude in the Șureanu, Poiana Ruscă and Metaliferous Mountains (all belonging to Apuseni Mountains).

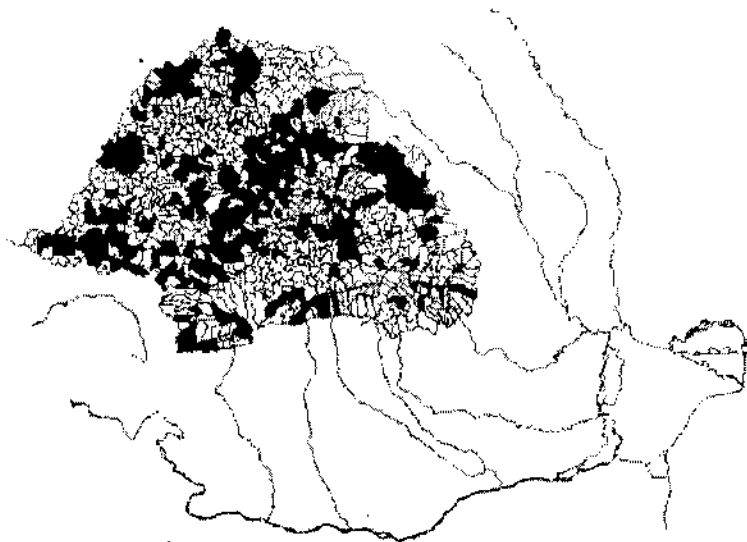


Fig.2 New localities for *Triturus vulgaris* in Transylvania

3. *Triturus cristatus complex* Laurentus, 1768 (warty newt, triton cu creastă)

Common species, preferring large swamps in comparison to other newt. Found in 449 localities in plain and hill region, up to 900 m altitude. No differences were made between this species and *T. dobrogicus*. This species was recorded before in the Western Plain (Covaciu-Marcov, personal communication)

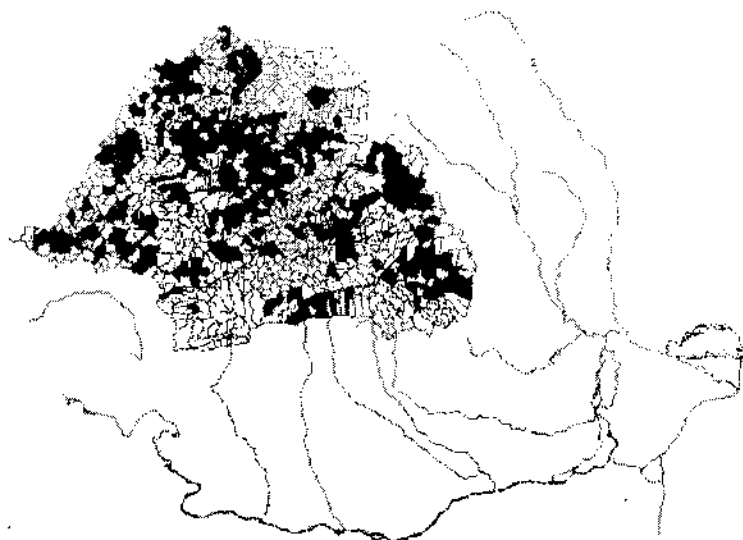


Fig. 3 New localities for *Triturus cristatus* complex in Transylvania

4. *Triturus alpestris* (Laurentus) 1768 (alpine newt, triton de munte)

A common species in puddles, swamps and ditches at the paths' verges, or on mountainsides, between 1800 and 700 m. Usually in beech or spruce-fir forested areas, and rare in dwarf pine forests, or higher. In Highiş-Drocea Mountains (In Arad district), it reaches the lowest altitude: 450 m.

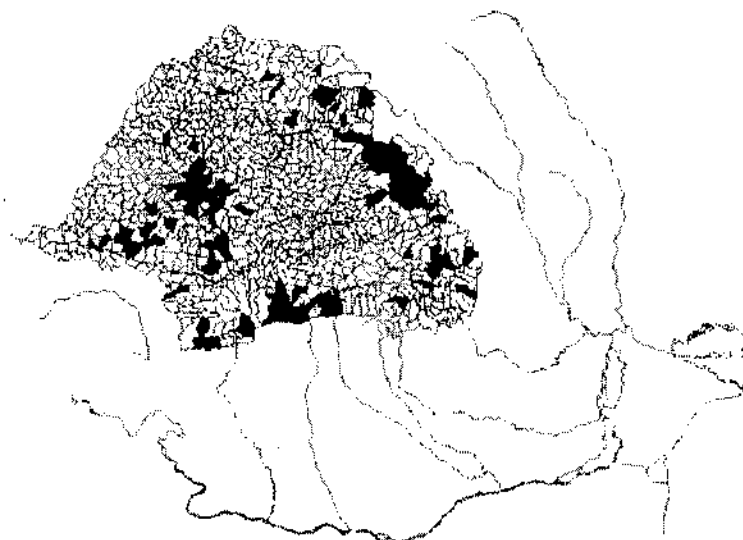


Fig. 4 New localities for *Triturus alpestris* in Transylvania

5. *Triturus montandoni* (Boulenger) 1880 (Montandon's newt, triton carpatic)

An endemical species for the Carpathian Basin, it is not rare in the Eastern Carpathians mountain areas and rare in hill ones. Of all amphibian species, *Tr. montandoni* seems to be the rarest, being found in only 16 localities. Two new localities were found in the western part of Bistrița-Năsăud district, in a hilly region, expanding the areal. These populations seem to be hybrid with *T. vulgaris*.



Fig. 5 New localities for *Triturus montandoni* in Transylvania

ORD. ANURA

Fam. Discoglossidae

6. *Bombina variegata* (Linnaeus) 1758 (yellow-bellied toad, izvoaraș-cu-burta-galbenă)

It is a species altitudinally occurring between 300 and 1600-1700 m. Not pretentious to water quality, may be found in small, temporary water bodies (swamps, ditches, puddles), being the most common amphibian species together with *Rana ridibunda*. The lowland populations are hybrids with *B. bombina*.

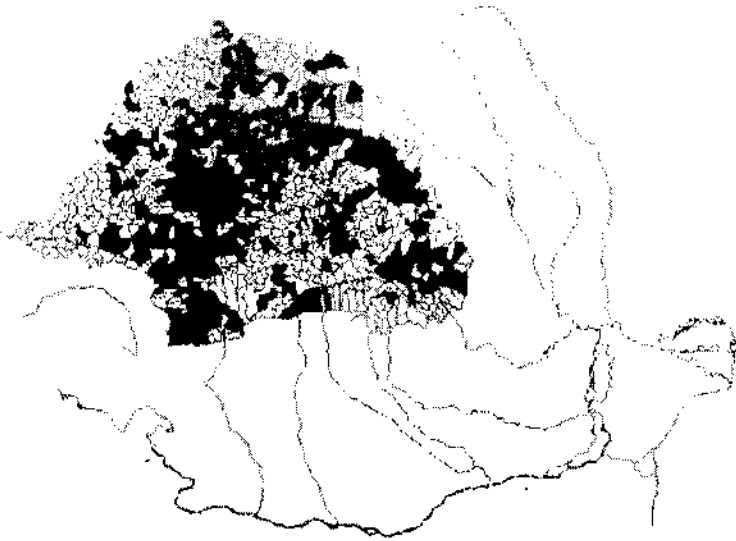


Fig. 6 New localities for *Bombina variegata* in Transylvania

7. *Bombina bombina* (Linnaeus) 1761 (red bellied toad, izvorăș-cu-burta-roșie)

A lowland species, sensitive to water's quality. Rarely seen in the Transylvanian Plain (Cluj, Bistrița-Năsăud and Mureș districts) and much more often in The Western Plain (Satu-Mare, Bihor and Arad districts).

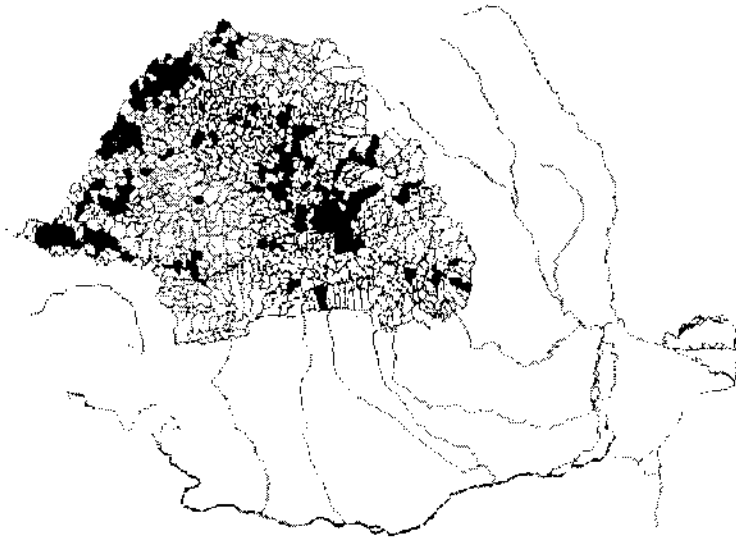


Fig. 7. New localities for *Bombina bombina* in Transylvania

Fam. Pelobatidae

8. *Pelobates fuscus* (Laurentus) 1768 (common spadefoot, broască săpătoare brună)

Secretive nocturnal species, discontinuous found in lowland and hills up to 700 m. Rare or difficult to be observed, needs further investigations to complete the distribution map.

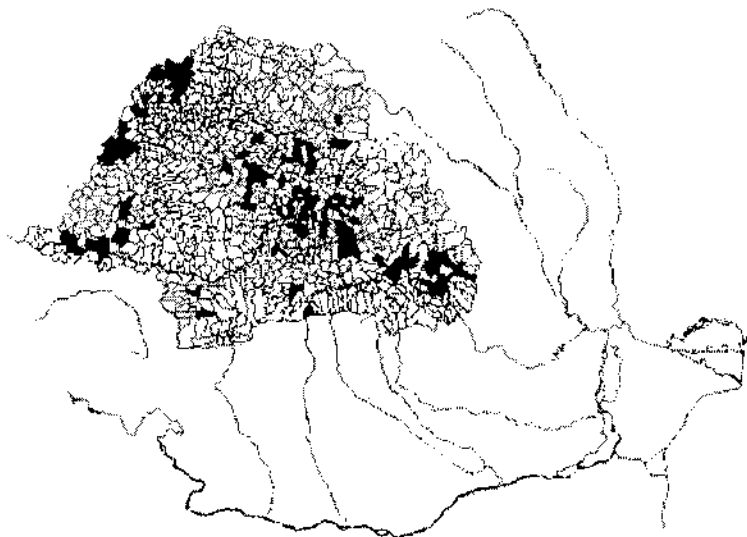


Fig. 8. New localities for *Pelobates fuscus* in Transylvania

Fam. Bufonidae

9. *Bufo bufo* (Linnaeus) 1758 (common toad, broasca râioasă brună)

A common species in Transylvania, especially in mountainous and hilly regions. It occurs up to 1400 m. The most important populations live in beech and hornbeam forests.

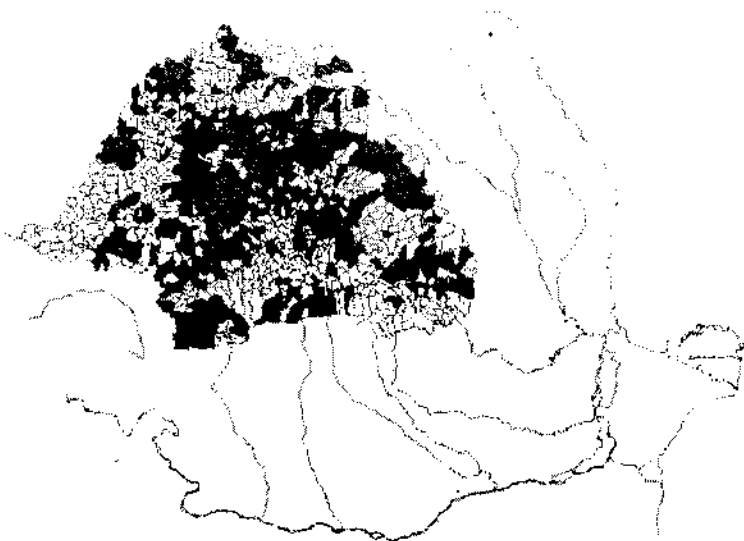


Fig. 9. New localities for *Bufo bufo* in Transylvania

10. *Bufo viridis* Laurentus 1768 (green toad, broasca râioasă verde)
Common in lowland and hilly regions and rare in mountain zones.
Occurs up to 900 m, being thermophilous. Very resistant to dryness, and to salty water.

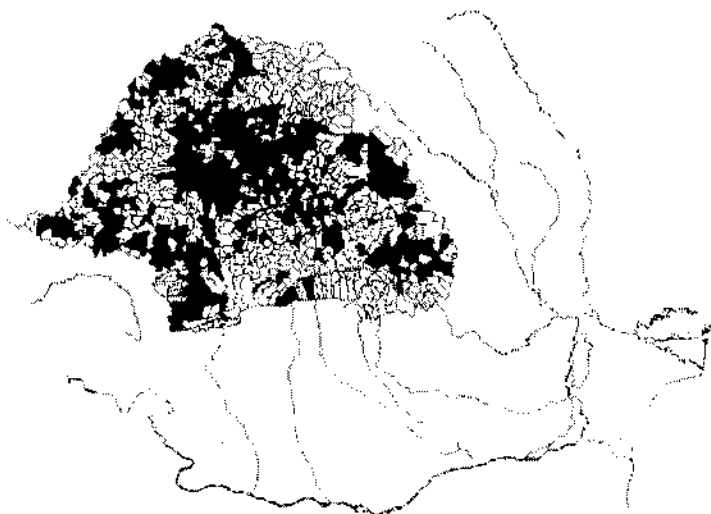


Fig. 10. New localities for *Bufo viridis* in Transylvania

Fam. Hylidae

11. *Hyla arborea* (Linnaeus) 1758 (common tree frog, brotac)

Arboreal species, found in lowlands and hill regions, up to 800 m; not very large populations, comparatively to south of the country.

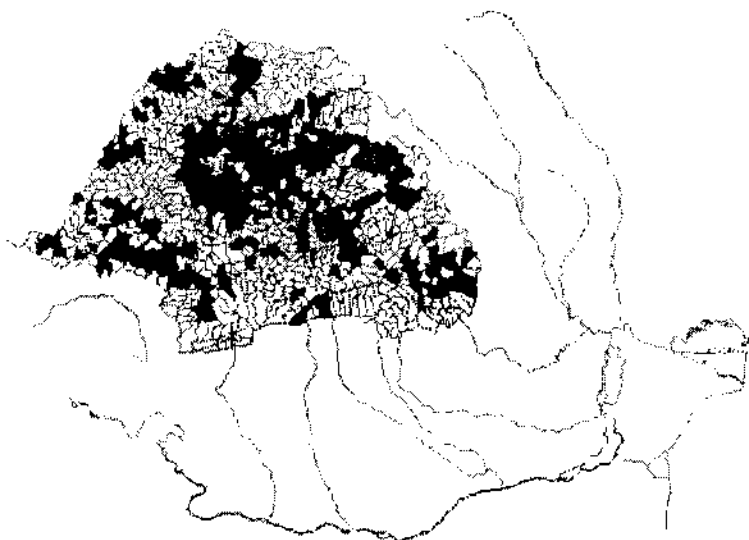


Fig. 11. New localities for *Hyla arborea* in Transylvania

Fam. Ranidae

12. *Rana temporaria* Linnaeus 1758 (common frog, broasca roșie de munte)

A common species in mountain forests, less common in hills and very rare in lowlands. Large populations in coniferous and beech woods, where needs swamps, ditches or ponds to reproduce. The most resistant species to low temperatures, it can live by glacial ponds at 2000–2200 m altitude, in Retezat, Parâng or Făgăraș Mountains.

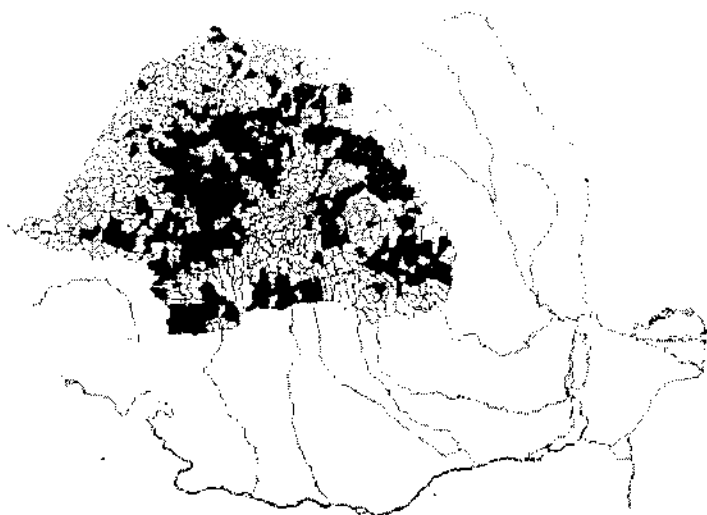


Fig. 12. New localities for *Rana temporaria* in Transylvania

13. *Rana dalmatina* Bonaparte 1839 (agile frog, broasca roșie de pădure)

One of the most common frog, especially in lowland, hill and mountain forests and pastures, up to 1000 m. Occurs in the same habitats as *R. temporaria*, but is more termophilous.

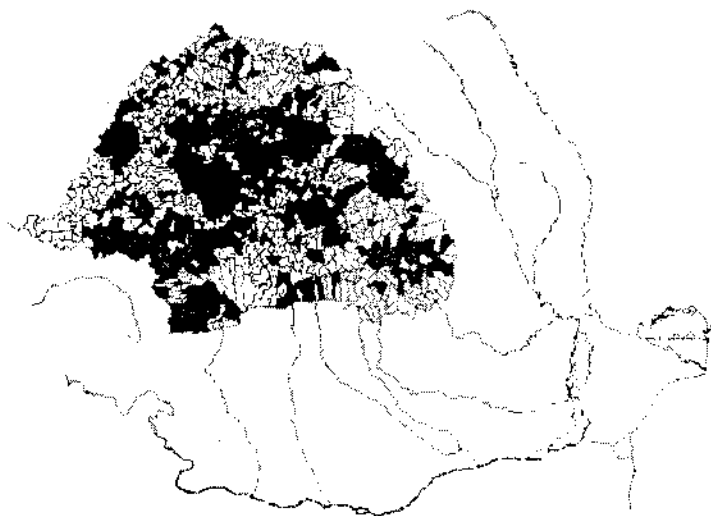


Fig. 13. New localities for *Rana dalmatina* in Transylvania

14. *Rana esculenta* complex: *Rana ridibunda* Pallas 1771 and *R. lessonae* Camerano 1878 (marsh frogs, broasca de lac)

The most common species, wide-spread in almost all water bodies up to 800 m. No special investigation was performed concerning *R. lessonae* except two localities (Cluj and Urziceni - Satu-Mare district) where this species was found.

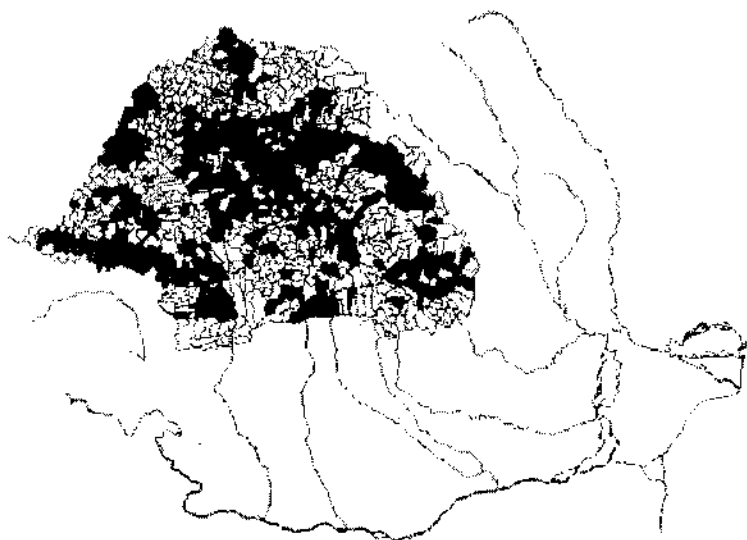


Fig. 14. New localities for *Rana esculenta* complex in Transylvania

15. *Rana arvalis* Nilsson, 1842 (moor frog, broască de mlaștină)

Rare species occurring in Transylvania in lowland habitats, by marshes and swamps. Most of the new localities were found in Satu-Mare, Bihor and Covasna districts.

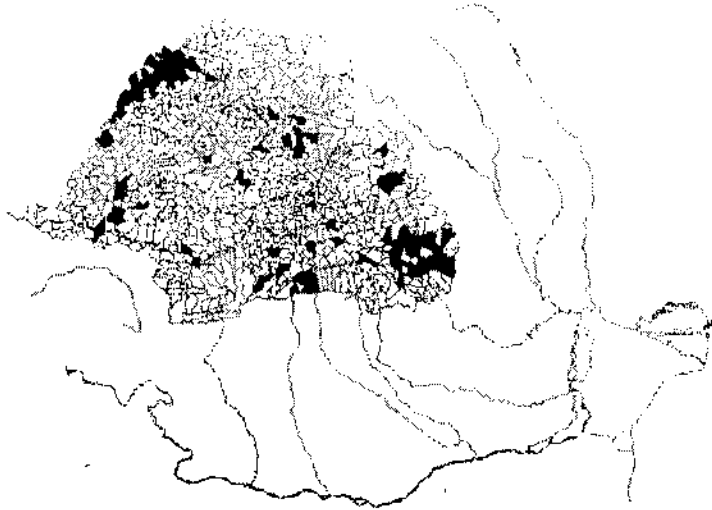


Fig. 15. New localities for *Rana arvalis* in Transylvania

CLS. REPTILIA
ORD. TESTUDINA

Fam. Emididae

16. *Emys orbicularis* (Linnaeus) 1758 (pond turtle, țestoasă de apă)
Rare species, known before in only 14 localities. Especially recorded in lowlands (in large ponds used for fish breeding) and in few small river valleys used as a refugees. These populations are very small and vulnerable.

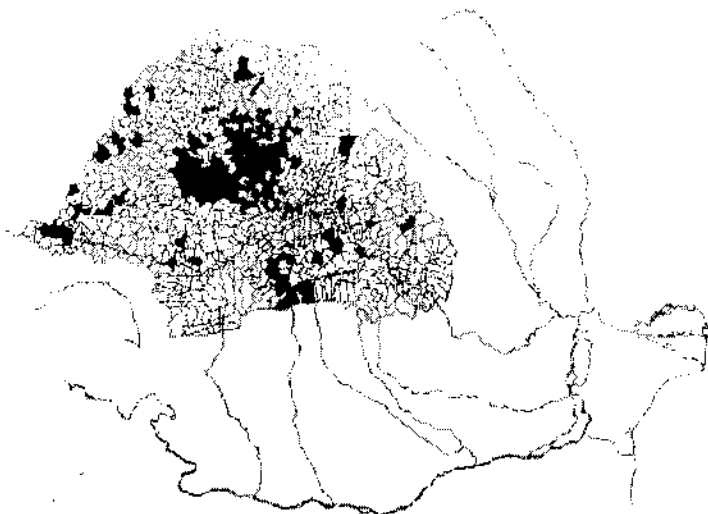


Fig. 16. New localities for *Emys orbicularis* in Transylvania

ORD. SAURIA

Fam. Lacertidae

17. *Lacerta agilis* Linnaeus 1758 (sand lizard, șopârlă de câmp)

The most common lizard species occurring in two thirds of the checked localities. Large populations exist in lowlands but the species goes up to 1400 m on some river valleys. It is depending on a certain degree of humidity.

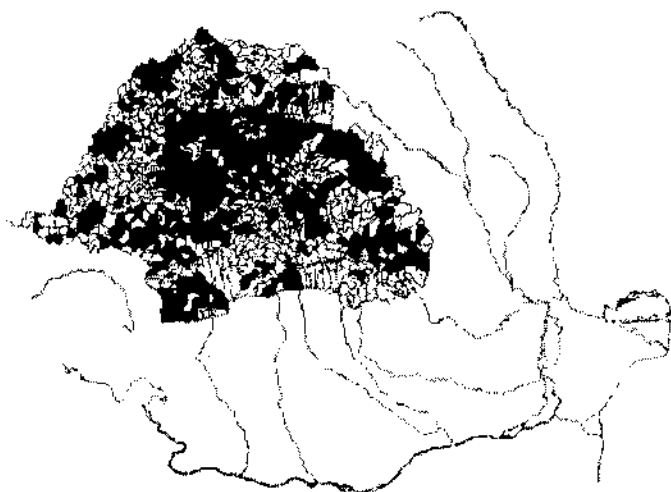


Fig. 17. New localities for *Lacerta agilis* in Transylvania

18. *Lacerta viridis* (Laurentus) 1768 (green lizard, guşter)

Thermophilic species, occurring up to 700–800 m altitude. Common in hill region and less common in lowlands. Prefers the slope sun exposed and rocky habitats.

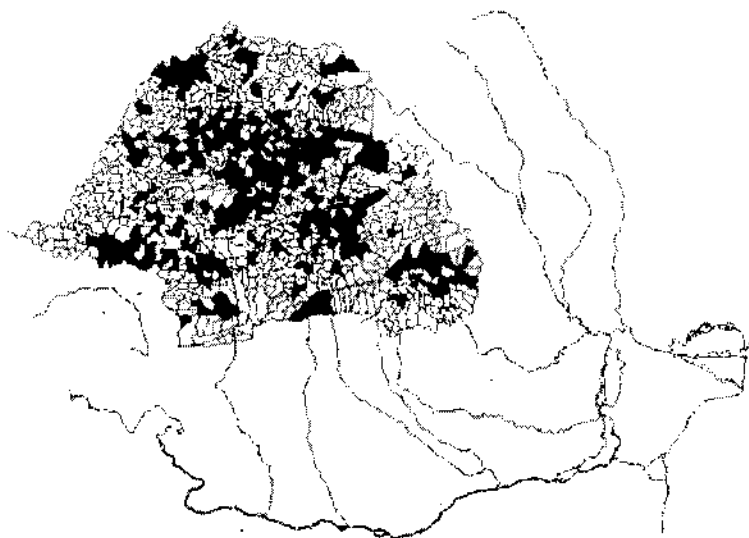


Fig. 18. New localities for *Lacerta viridis* in Transylvania

19. *Lacerta praticola* Eversmann 1834 (meadow lizard, şopârlă de păşune)

In Transylvania, this southern species was found by us in only one locality: Deva in Hunedoara district (Ghira, 1994). Deva is situated in the N-E part of Poiana Ruscă Mountains. In 1943, Fejervary Langh records the species in the S-W part of these mountains in Nădrag, Timiş district. The meadow lizard is a very secretive species and further investigations have to be done.

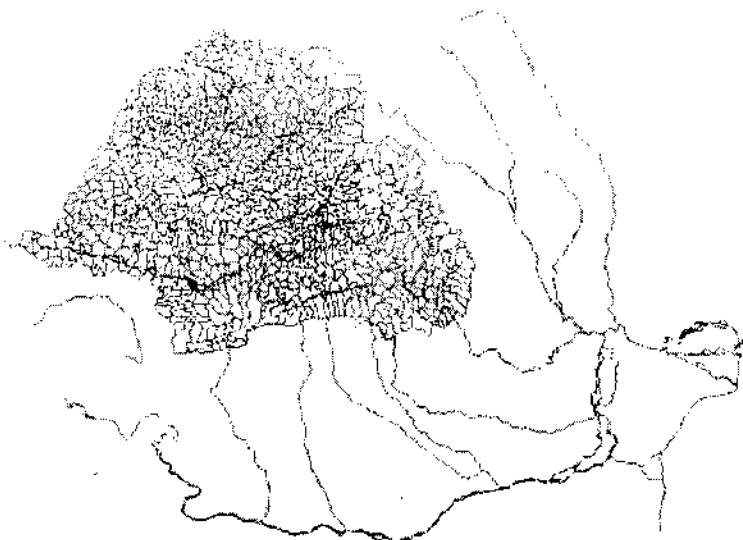


Fig.19. New localities for *Lacerta praticola* in Transylvania

20. *Lacerta vivipara* Jacquin 1787 (viviparous lizard, șopârlă de munte)

Known before as a mountainous species in our country, it was found in Western Plain in three localities: Marghita, in Bihor district, and Căuș and Ady Endre in Satu-Mare district. These populations seem to be connected to the eastern Hungarian lowland populations.

Other new localities were found in the mountainous zone, where it prefers forest edges, pastures, glades, and sunny slopes. Occurs up to 2000 m; in Grădiștea de Munte, Hunedoara district, the species goes down to 600 m altitude in the river valley, in mixed populations with *Podarcis muralis*.

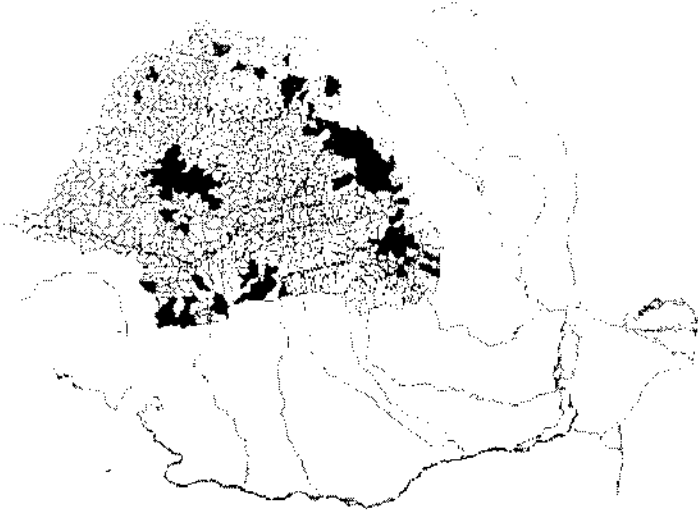


Fig. 20. New localities for *Lacerta vivipara* in Transylvania

21. *Podarcis muralis* Bielz 1856 (common wall lizard, șopârlă de ziduri)

Much more dependent to rocky habitats than *L. viridis*, the common wall lizard occurs in compact populations only in rock piles, scree, debris or other rocky habitats. Not very common because of the scarcity of these habitats. Altitudinally spread up to 1200 m, only in some limestone steep valleys, but usually up to 8–900 m.

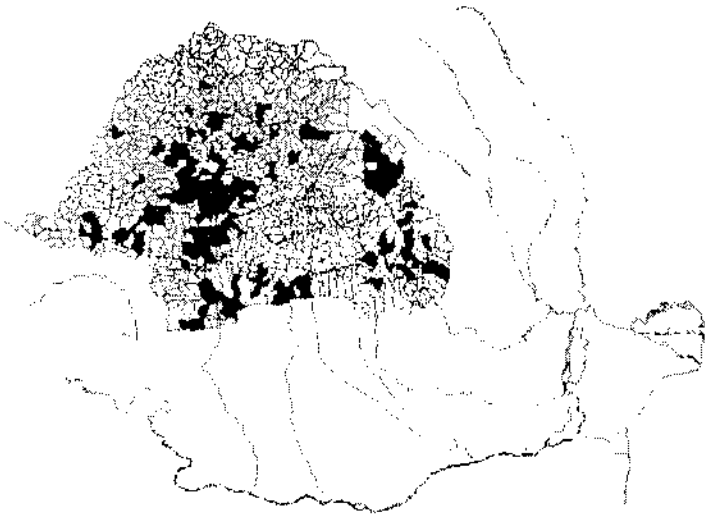


Fig. 21. New localities for *Podarcis muralis* in Transylvania

Fam. Anguidae

22. *Anguis fragilis* (Nordmann) 1840 (slow worm, șarpe de sticlă, năpârcă)

An ovoviviparous common species spread between 300 and 1900 m altitude. The largest populations occur in wet lawns in hilly and low mountain zones.

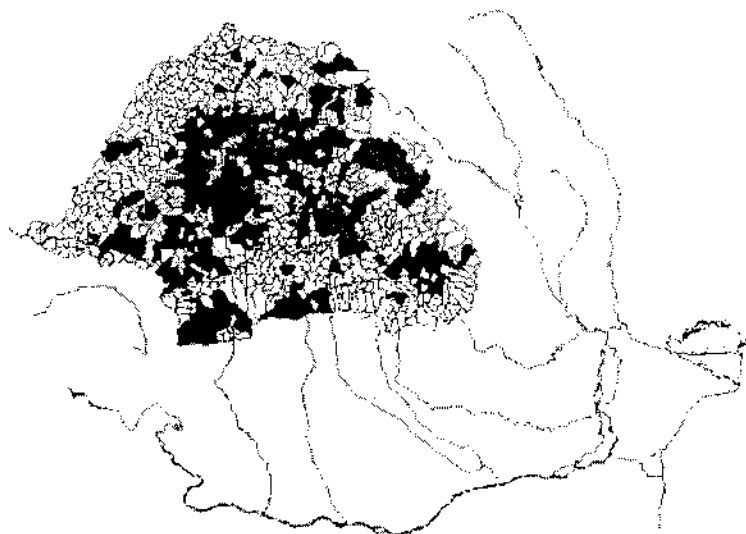


Fig. 22. New localities for *Anguis fragilis* in Transylvania

ORD. SERPENTES

Fam. Colubridae

23. *Natrix natrix* (Linnaeus) 1758 (grass snake, șarpe de casă)

The most common snake species, goes up to 900 m altitude; prefers the vicinity of river valleys or other water bodies, but occurs too in forest edges, lawns or cultivated areas.

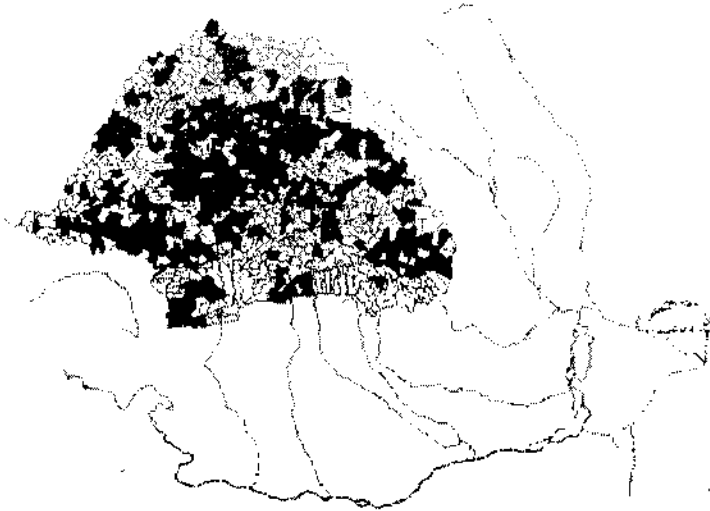


Fig. 23. New localities for *Natrix natrix* in Transylvania

24. *Natrix tessellata* (Laurentus) 1768 (dice snake, șarpe de apă)

Semiaquatic species occurring by running or stagnant water, up to 900 m altitude.

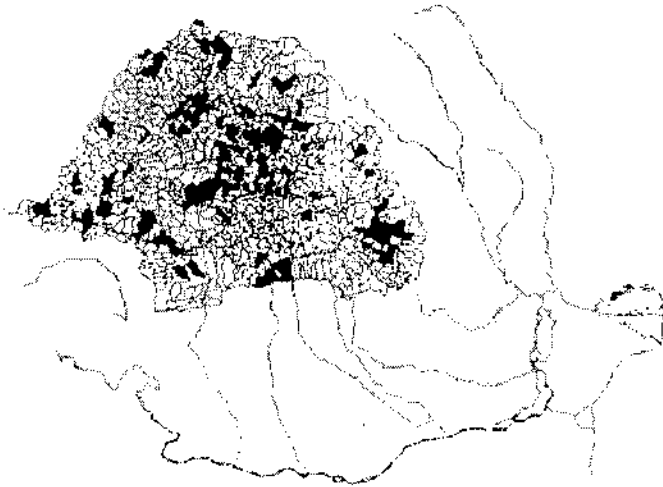


Fig. 24. New localities for *Natrix tessellata* in Transylvania

25. *Coronella austriaca* Laurentus 1768 (smooth snake, șarpe de alun)

Prefers rocky habitats, but occurs equally in dry steep slopes sun exposed covered partially by vegetation and populated by lizards. More often in hilly regions than in lowland or mountain ones. In Transylvania goes up to 8–900 m.

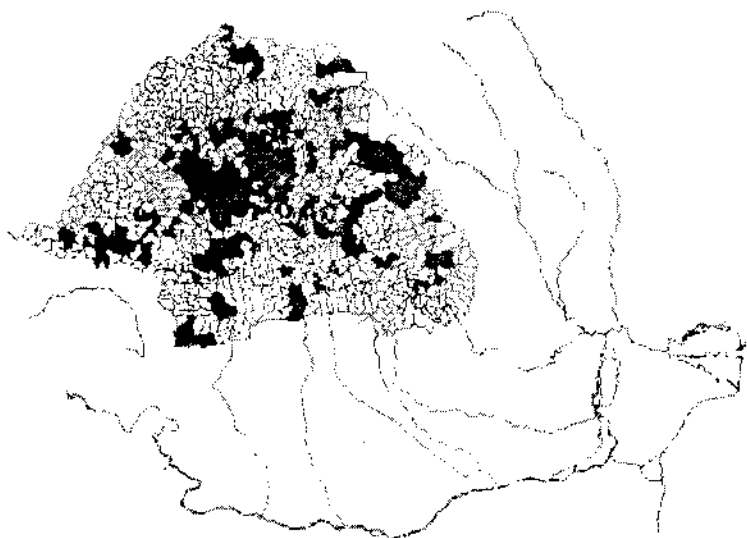


Fig. 25. New localities for *Coronella austriaca* in Transylvania

26. *Elaphe longissima* (Lurentus) 1768 (aesculapian snake, șarpele lui Esculap; șarpe de pădure)

Arboreal species restricted to woodland habitats. Rare in lowlands but not very rare in hilly and mountainous regions up to 1000–1100 m.

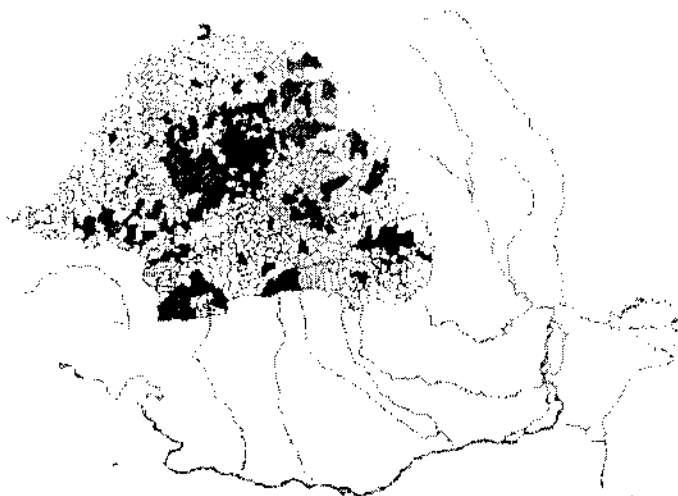


Fig. 26. New localities for *Elaphe longissima* in Transylvania

Fam. Viperidae

27. *Vipera berus* (Linnaeus) 1758 (adder, viperă)

Common in mountainous regions, less common in hilly regions and rare in lowlands. Only few localities were found in the Western Plain: Noroieni in Satu-Mare district, Oradea, Băile 1 Mai, Betfia and Felcheriu in Bihor district and Ghioroc in Arad district.



Fig. 27. New localities for *Vipera berus* in Transylvania

28. *Vipera ammodytes* (Linnaeus) 1758 (nose-horned viper, viperă cu corn)

The *V. a. ammodytes* subspecies is restricted to southern districts: Hunedoara, Alba, Sibiu and Arad. Isolated populations only in southern slopes, with scree and shrub vegetation, especially limestone gorges or quarries.

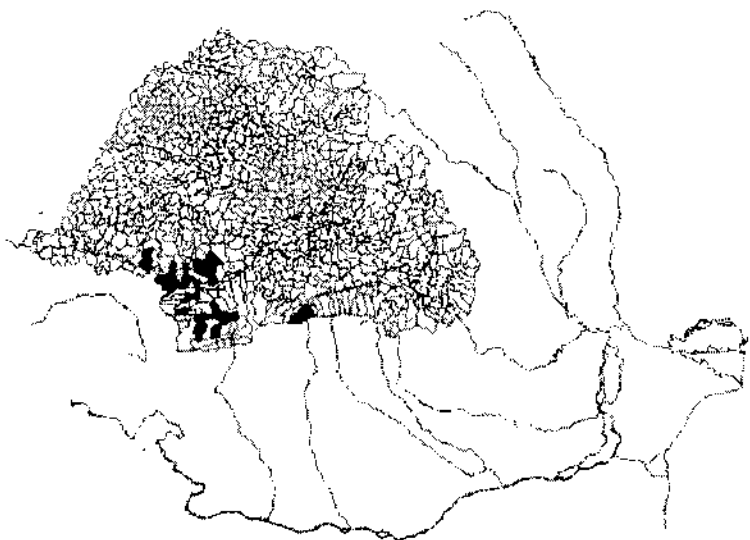


Fig. 28. New localities for *Vipera ammodytes ammodytes* in Transylvania

Acknowledgements:

To all people who helped to this laborious activity and especially to those without whose noble help this action would not be possible: dr. Beate Nurnberger, Lucian Pascu, Maria Pâslaru, Victor Christ, Maria Urlea, Octavian Craioveanu, Sorin Androne, Dorin Cărăbeș, Cristian Aurori, Petru Graef, Zoltan Csata, Tibor Sos, and many others.

LITERATURE

- Arnold E. N., Burton J. A. (1978). A Field Guide to the Reptiles and Amphibians of Britain and Europe. William Collins & Co. Ltd, London, 272 p.
- Bielz, E. A., (1856) Die Fauna der Wirbeltiere Siebenbürgens
- Călinescu, R., (1931) Contribuțiuni sistematice și zoogeografice la studiul amfibizilor și reptilelor din România. Mem. Secț. Științ. Acad. Române, București, 7, pp: 119-291
- Cogălniceanu, D. (1991) A preliminary report on the geographical distribution of amphibians in Romania; Rev. Roum., Biol.-Biol., Anim., Tome 36, 1
- Engelmann, W.-E., Fritzsche, J., Gunther, R., Obst, F. J., (1985) Lurche und Kriechtiere Europas, Neumann Verlag Leipzig – Radebeul, 420 pp.
- Fuhn, I. E. (1940) Notes herpetologiques, C. R. Sc. Inst. Sc. Roum. 4, (1), pp: 41-43
- Fuhn, I. E. (1952) Notă asupra herpetofaunei Dobrogei. Natura, (4, 6)
- Fuhn, I. E. (1953) Note herpetologice. Natura, (6)
- Fuhn, I. E. (1955) Notă asupra șopârlei *Lacerta taurica taurica* Pallas din Dobrogea. Acad. R.P.R. Bul. Științ. Biol., 7, (4), pp: 1081-1095
- Fuhn, I. E. (1960) Fauna Republicii Populare Române. Amphibia; Editura Academiei R.P.R., București, 288 pag.
- Fuhn, I. E., Vancea, Șt. (1961) Fauna Republicii Populare Române. Reptilia; Editura Academiei R.P.R., București, 352 pag.
- Fuhn, I. E. (1969) Broaște, șerpi, șopârle; Editura Științifică București, 245 p.
- Gruber, V. (1992) Guide des Serpents D'Europe, D'Afrique du Nord et du Moyen-Orient. 248 p.
- Kirițescu, C. (1901) Enumerația reptilelor și batracienelor din România. Publ. Soc. Natur. România, 1.
- Kirițescu, C. (1930) Cercetări asupra faunei herpetologice a României; Cartea Rom. București. 46 p.
- Mertens, R., (1923) Beitrage zur Herpetologie Rumaniens Senkenb., 5, pp: 207-227
- Miclușă, Hortensia, (1970) Note faunistice herpetologice din județul Maramureș. Bul. Științ. Inst. Pedag. Baia Mare, Ser. B, 2, pp: 39-42
- Stugren, B., (1966) Geographic variation and distribution of the moor frog, *Rana arvalis* Nilss. Ann. Zool. Fennici, 3, pp: 29-39
- Tesio, C., Marinescu, A., (1982) Sur la presence de la petite grenouille verte, *Rana lessonae* Camerano (1882) en Roumanie. Anal. Univ. Buc. Biol., 31, pp: 73-80
- Vancea, Șt., (1958) Contribuții la sistematica și ecologia lacertidelor din R.P.R. III Șopârle de ziduri – *Lacerta muralis muralis* Laurentus. Acad. R.P.R. Stud. Cerc. Ști. Iași, 9 (1), pp: 73-84
- Vancea, Șt., Fuhn, I. E., (1959) Contributions à la systématique et à l'écologie des Lacertides de la R.P.R. II. Le lézard vert des bois – *Lacerta viridis viridis* Laurentus. Ann. Sci. Univ. „Al. I. Cuza” Iassy (nouv. Série), 5, pp: 61-80

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	Se	Te	Tc	Ta	Tn	Bsh	Bex	Pf	Bsh	Bef	Hk	Rr	Rd	Rc	Est	Lvt	La	Lvt	Ep	Pa	At	Nt	Ca	El	Vp	Va
BOCSIG	0	1	1	0	0	1	0	1	0	1	1	1	0	1	1	0	0	0	0	0	0	1	1	0	0	0
BODEST	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
CALUGARENI	0	1	1	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPILNAS	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0
CAPRUTA	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
CARAND	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
CASOALA	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
CERMEI	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
CHIFLAC	0	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CHISINEU-CRIS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0
CLADOVA	1	1	0	1	0	1	0	1	0	0	1	1	1	0	0	1	1	0	0	1	0	1	1	1	1	0
CLIT	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
CONOP	0	0	0	0	1	1	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0	1
COVASINT	0	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0
CRAIVA	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CURTICI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
DEZNA	1	1	1	0	0	1	0	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	0	1	0
DIECI	1	1	1	0	0	1	0	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0
FINTINELE	0	0	0	0	1	0	0	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
GHIOROC	0	1	0	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0
GURAHONT	0	0	1	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	0	1	0	0
HALMAGEL	1	0	0	0	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0	1	0	0	1	1	0
HALMAGIU	1	0	0	0	0	1	0	1	0	0	1	1	0	0	0	1	0	0	0	1	0	1	1	0	1	0
HODIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
HODIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
INEU	0	1	1	0	0	1	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	1	1	0	0	0
IRATOSU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
LABASINT	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0
LIPOVA	0	1	1	0	0	1	0	0	1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1	1	0
LIVADA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADERAT	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0
MADRIGESTI	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
MINDRULOC	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
MONFASA	1	0	0	1	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	1	1	0	0	1

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Ss	Ts	Tc	Ta	Tm	Bsh	Bov	Pf	Bsh	Bshf	Ra	Rf	Rd	Ra	En	Lar	La	Lv	Lp	Pm	Af	Nt	Cs	Ef	Vb	Vr
TAUT	BATAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
TILEAGD	TILEAGD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
TINCA	TINCA	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	
TOROLU	GIRSU DE CRIS	0	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	
UILEACU DE BIEUS	UILEACU DE BIEUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
VADU CRISULUI	VADU CRISULUI	1	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	0	
VALEA IADULUI	REMETI	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
VALEA LUI MIHAI	VALEA LUI MIHAI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
VASAD	CURTUSENE	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
VASCAU	VASCAU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
VOIYOZI	POPESII	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BISTRITA-NASAUD district																											
AGRES	TIRLISUA	1	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	2	0	0	0	0	1	0	0	0	
AGRISEL	TIRLISUA	1	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	
ARCALIA	SIEU-MAGHERUS	1	1	0	0	0	1	0	1	0	1	0	1	0	0	0	1	1	0	0	0	1	0	0	1	0	
ARCHID	TEACA	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	
BECLEAN	BECLEAN	0	1	1	0	0	0	1	0	1	0	1	1	0	1	0	1	0	1	0	0	0	1	0	0	0	
BEJDIU	MUSENI	0	1	1	0	0	0	1	0	1	1	1	0	1	0	1	0	1	0	0	0	1	0	0	0	0	
BIRLA	MARISELU	0	1	1	0	0	0	1	0	1	1	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	
BOZIES	CHIOCHIS	1	1	1	0	0	1	1	1	0	1	0	1	0	1	0	1	1	0	0	0	1	1	0	0	0	
BRATENI	SINMIHAIU DE CIMPIE	1	1	0	0	1	0	0	1	1	0	1	1	0	1	1	0	1	0	0	0	1	1	0	0	0	
BRAZA	CICEU-GIURGESTI	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	
BUDACU DE SUS	BUDACU DE JOS	1	1	0	0	0	1	0	1	0	1	1	1	0	0	0	0	1	0	0	1	1	0	0	1	0	
CEPARI	DUMITRA	0	1	1	0	0	0	1	0	1	0	1	1	0	1	0	1	1	0	0	1	1	0	0	1	0	
CETATE (SATU-NOU)	CETATE	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	
CHIOCHIS	CHIOCHIS	1	1	0	0	0	1	0	1	0	1	1	0	1	0	0	0	1	0	0	0	1	0	1	0	0	
CICEU-CORABIA	RETEAG	1	1	0	0	0	1	0	1	0	1	0	1	0	0	1	0	1	0	0	0	1	1	0	1	0	
CICEU-GIURGESTI	CICEU-GIURGESTI	1	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	1	1	0	1	0	
CIREASI	TIRLISUA	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	
COCIU	SINTEAREAG	0	1	1	0	0	1	0	1	0	0	1	1	0	1	1	0	1	0	0	0	1	1	0	0	0	
COLBITA	BISTRITA BIRGAULUI	1	0	0	1	0	0	1	0	1	1	1	0	1	0	0	1	1	0	0	0	0	1	0	0	0	
CORMAIA	SINGEZOR -RAI	1	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	1	0	0	0	1	0	1	1	0	
COSBUC	COSBUC	1	1	0	0	0	1	0	1	0	1	1	1	0	1	0	0	1	0	0	0	1	1	0	1	0	

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Ss	Tv	Tc	Ta	Tm	Bab	Bov	Pf	Bub	Baf	Ha	Rf	Rt	Rd	Ra	Ro	Lsv	La	Lsv	Lp	Pm	Af	Ns	Nt	Cs	Et	Vb	Va
CRISTUR-SIEU	SILU-OPORIEI	0	1	0	0	1	1	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
CUSMA	LIVIZILE	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0
DEALU STEFANITEL	ROMULI	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	1	0	0	1	1	0	0	0	1	0
DOMONESTI	MARISELU	0	1	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0
DOROLEA	LIVIZILE	0	0	1	0	0	1	0	0	1	0	1	1	1	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0
DUMBRAVA	NUSENI	1	1	0	0	0	1	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	0	0	1	0	0
DUMBRAVENI	CICU -GIURGESTI	1	1	0	0	1	1	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
DUMBRAVITA	CAIANU-MIC	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0
DUMITRA	DUMITRA	0	1	1	0	0	1	0	0	1	1	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0
PELLAC	NUSENI	0	1	1	0	0	0	1	0	1	1	1	0	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	0
FIAD	TELGIU	1	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1	0	1	0	0	0	0	1	0	0	0	1	0
FIGA	BICLEAN	0	0	1	0	0	1	0	1	0	1	1	1	1	0	0	1	0	1	0	0	0	0	1	1	1	0	1	0
GHINDA	BISTRITA	1	1	0	0	0	1	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	1	0	1	1	0
ILISUA	URU	1	1	0	0	0	1	0	1	1	0	1	1	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1	0
ILVA MICA	ILVA MICA	1	1	1	0	0	1	0	1	1	0	1	1	1	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0
JOSENI BIRGAULUI	JOSENI BIRGAULUI	0	0	0	0	0	1	0	1	0	1	0	1	1	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0
LECHINTA	LECHINTA	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0
LELESTI	RETEAG	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0
MANIC	CHIOCHIS	1	0	1	0	0	0	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0
MARISELU	MARISELU	0	1	1	0	0	1	0	1	0	1	0	1	1	0	1	0	0	1	1	0	0	0	1	1	0	1	0	0
MATEI	MATEI	1	0	0	0	0	1	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0
MICESTII DE CIMPIE	MICESTII DE CIMPIE	0	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	0	1	1	1	1	0	0	0
MIRIS	CIUZA	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0
MOLISET	TRILSUA	1	1	0	0	0	1	0	1	0	1	0	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0
MURESENII BIRGAULUI	TIHA BIRGAULUI	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
NEGRELESTI	CICU-GIURGESTI	1	0	0	0	0	1	0	0	1	1	1	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
NIMIGEA DE JOS	NIMIGEA	1	0	0	0	0	1	0	1	1	1	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1	0	0
NUSENI	NUSENI	1	0	1	0	0	0	1	1	1	1	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1	0	0
ORHIEU BISTRITEL	CFATE	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	0	1	1	0	0	1	0	0
PARVA	PARVA	1	0	0	1	0	0	1	1	1	0	1	1	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0
PASUL ROTUNDA	SANT	1	0	0	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0
PETRIS	CFATE	0	0	0	0	0	1	1	1	0	1	1	1	0	1	0	1	0	0	0	1	0	0	1	0	0	1	0	0
PIATRA	CIUZA	0	1	1	0	0	0	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	Sr	Tv	Tz	Ta	Tm	Bab	Bev	PI	Bub	BeF	Hs	Rr	Rc	Rd	Re	Ea	Lvt	La	Lvv	Lp	Pm	Af	Nh	Nt	Ca	Cl	Vh	Va			
TOWN																															
ORMENIS	1	0	1	0	0	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	1	1	0		
RACOS	0	1	0	0	0	0	1	1	1	1	0	1	1	1	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0		
RUPEA	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	0	1	0	1	0	0		
VOILA	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CLUJ district																															
AGHIRESU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	1	1	0	0	0		
AITON	0	1	1	0	0	0	1	0	1	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
ALUNIS	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	
APAHIDA	0	1	1	0	0	1	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	
ASCHILEU MARE	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
ASCHILEU MARE	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
BARUTU	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	
BAISOARA	1	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	1	0	0	0	0	0	
BERCHIESU	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0
BOBALNA	0	0	1	0	0	0	1	0	1	0	0	1	1	1	0	0	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0
BOLDUT	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
BOLOGA	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
BONT	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
BONTIDA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
BORSA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
BOTENI	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
BURU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0
CAMPENESTI	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
CAIANU-VAMA	0	0	0	0	0	1	1	0	0	1	0	1	1	1	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0
CALATA	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
CAMARASU	0	1	1	0	0	1	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
RECEA CRISTUR	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
CAPUSUL MARE	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
CASEIU	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
CEANU-MARE	0	1	0	0	0	1	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
CHINTENI	0	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
CHIJESTI	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0
CIUCEA	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0

Annex 1 (continued)(the abbreviations correspond to table 2)

LOCALITY	Sa	Tv	Tr	Ta	Tm	Bob	Box	PI	Bib	Ref	Ha	Br	Re	Rd	Rz	En	Lar	La	Lv	Lp	Pa	AT	Nb	Ni	Ca	El	Vb	Va
TOWN																												
CIJMATAIA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	0	0	1	1	0
BORSA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	1	0	1	0
CLUJ	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	1	0	1	0
COJOCNA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0
COLONIE	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
TRITENII DE JOS	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	0
CORNESTI	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1	0
CRUSENI	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1	0
DABACA	1	0	0	0	0	0	1	0	1	1	0	1	1	1	0	1	0	1	0	0	1	1	1	1	1	1	1	0
DEUSU	0	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
CHINTENI	0	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
MANASTIRLI	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
BRETEA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
CPUSU MARE	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
DUMBRAVA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FALCA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
RULEA DE JOS	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
MOCIU	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GIURLA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FIZESU GHERLII	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FIZESU GHERLII	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FODOKA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FRATA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FUNDATURA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
FUNDATURA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GADALIN	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GARBANU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GARBANU	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GEACA	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GEACA	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GHERLA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GHERLA	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GILAU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
GILAU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
HOEDIN	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
HOEDIN	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
IARA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
IARA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
ICLOD	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
ICLOD	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
IGRITA	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
IGRITA	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
JOCU DE SUS	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
JOCU DE SUS	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
JOCU	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
JOCU	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LEGBIA	1	0	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LEGBIA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
AGHRES	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
AGHRES	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LITA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LITA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LITENI	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LITENI	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LIVADA	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIVADA	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PETRESTII DE JOS	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
PETRESTII DE JOS	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
CORNESTI	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
CORNESTI	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LUNA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LUNA	0	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LUNA DE JOS	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
LUNA DE JOS	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
DABACA	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	0
DABACA	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0								

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	Se	Tv	Tc	Ta	Tm	Bmh	Bov	Pf	Bub	Bed	Ht	Rr	Rt	Rd	Ra	En	Lvs	Las	Lvs	Lp	Fm	AT	Nu	Nr	Ca	El	Vb	Va
LUNA DE SUS	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	
LUNCA VISAGULUI	1	1	0	1	0	0	1	0	1	1	0	1	1	1	0	0	0	1	0	0	1	1	1	0	1	1	0	
LUNCANI	0	1	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	
MAGURA IERII	0	1	0	0	0	0	1	0	0	0	0	1	1	1	0	0	1	0	0	1	1	1	1	0	0	0	0	
MAGURI-RACATAU	1	0	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0	
MAGURI-RACATAU	1	0	0	1	0	0	1	0	1	0	1	1	1	0	0	0	1	1	0	0	1	1	1	0	0	1	0	
MANASTIRENI	0	0	0	0	0	0	1	0	1	0	0	1	0	1	1	0	0	1	0	1	1	1	1	0	0	1	0	
MARISEL	1	0	1	1	0	0	1	0	1	0	0	0	1	0	0	0	1	1	0	0	1	1	1	0	0	0	0	
MIRAL VITEAZU	0	1	1	0	0	0	1	0	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	
MOCIU	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	
MOLDOVNESTI	0	0	0	0	0	0	1	0	1	0	1	1	1	1	0	0	1	0	0	1	1	1	1	0	0	1	0	
MORAU	1	1	1	0	0	0	1	0	1	1	1	1	0	0	0	1	1	0	0	1	1	1	1	0	0	1	0	
MURSENB DE CAMPIL	0	1	0	0	0	0	1	0	1	1	1	1	1	0	1	0	0	1	1	0	0	1	1	0	0	0	0	
NAOIU	0	0	0	0	0	0	1	0	1	0	1	1	1	0	1	0	0	1	0	0	1	1	0	0	0	0	0	
NEGRENI	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	1	1	0	1	1	1	0	
NICULA	1	0	1	0	0	1	1	0	1	1	1	1	0	1	0	0	1	0	0	1	0	1	1	0	0	1	0	
NIRES	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	
OCNA DEULUI	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	
OSORHEL	1	1	1	0	0	0	1	1	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	
PALATCA	0	0	0	0	0	0	1	0	1	0	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	
PANTICEU	1	1	1	0	0	0	1	0	1	1	0	1	1	1	0	0	1	0	0	1	1	1	1	0	0	1	0	
PETEA	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	1	1	0	0	0	
PETRESTI DE JOS	1	1	1	0	0	0	1	0	1	1	0	1	1	1	0	1	1	0	0	1	1	1	1	0	0	1	0	
PLOSCOS	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	
POENI	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	1	1	1	1	0	0	0	0	
RASCOCI	0	1	0	0	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	
RECEA CRISTUR	0	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	
RISCA	1	0	0	1	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0	0	1	0	
ROGOBEL	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	1	0	0	1	1	1	0	0	1	0	
RUGASESTI	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0	
SACALAEA	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	0	1	0	
SACEL	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1	1	0	0	1	1	1	0	0	1	0	
SALICEA	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	1	1	1	0	0	1	0	

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	S8	Tv	Tc	Ta	Zm	Boh	Dev	Pf	Bab	Barf	Ha	Hr	Rc	Rd	Ru	En	Lrr	La	Lrv	Lp	Pm	AF	Nh	Nr	Cs	El	Nb	Va
SINTIMBRU	SINCAIENI	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1	0
SUBCETATE	SUBCETATE	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	1	0	1	0	1	0
SUSENI	SUSENI	0	1	1	1	0	0	1	0	1	1	1	1	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0
TOMESTI	CIRTA	1	1	1	1	0	0	1	0	1	1	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0
TOPLITA	TOPLITA	0	1	1	0	0	1	0	1	0	1	0	1	1	1	0	0	0	1	1	0	0	0	1	1	0	0	1	0
TUSNAD	TUSNAD	1	0	1	1	0	0	1	0	1	0	1	0	1	0	0	0	0	1	1	0	1	1	1	0	0	1	1	0
VALE	TOPLITA	0	1	1	1	0	0	1	0	1	1	0	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0
VALEA STRIMBA	SUSENI	0	1	1	1	0	1	1	0	1	1	0	1	1	1	0	0	0	1	1	0	0	1	1	0	1	1	1	0
VIGANI	TOPLITA	1	1	0	0	0	1	0	1	0	1	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0
VOSLABENI	VOSLABENI	1	1	1	1	0	0	1	0	1	1	1	1	1	1	0	0	0	1	1	0	1	1	1	0	1	0	1	0
ZENCANI	TOPLITA	0	1	1	1	0	0	1	0	1	1	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0
HUNDEOARA district																													
ARDEU	BALSA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
BACIA	BACIA	1	1	0	0	0	1	1	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0
BAIA DE CRIS	BAIA DE CRIS	1	0	0	0	0	1	0	0	1	0	1	1	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
BAITA	BAITA	1	1	1	0	0	1	1	0	1	1	0	1	1	1	0	0	1	0	0	0	1	1	1	0	1	0	0	1
BALSA	BALSA	0	1	0	0	0	0	1	0	1	1	0	1	1	1	0	0	1	0	0	0	1	1	1	0	1	1	0	1
BANITA	BANITA	1	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
BARU	BARU	1	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
BATRINA	BATRINA	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BERIU	BERIU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEJANU TIRNAVITEL	SOJMUS	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0
BLAJENI	BLAJENI	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
BOBLINA	RAPOLTU MARE	0	0	0	0	0	1	0	0	1	0	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0
BOSKOD	BOSKOD	0	0	0	0	0	0	1	0	1	1	0	1	1	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0
BOCSA MICA	CERTEJU DE SUS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BOITA	RACHITAVA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BOZ	BRANISCA	0	0	1	0	0	0	1	0	1	1	1	1	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
BRAD	BRAD	1	1	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	0	0	1	0	0
BRANISCA	BRANISCA	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0
BRETEA MURESANA	ILIA	0	1	1	0	0	1	0	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0
BOIU DE SUS	GURASADA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
BRETEA ROMANA	BRETEA ROMANA	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	Sa	Tv	Tc	Ta	Tm	Buh	Box	PT	Barb	Bar	Hs	Rf	Rt	Rd	Ra	En	Lvr	La	Lvy	Lp	Pa	Af	Ne	Nt	Ca	El	Vb	Va
TOWN	1	1	0	0	0	0	1	0	1	1	1	1	0	1	0	0	1	1	0	0	0	1	1	0	0	0	0	
HATEG	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
HONEDARA	0	0	1	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILIA	0	0	1	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAPUGIU DE SUS	1	1	0	0	0	0	1	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1
LELESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
LUNCA CERNEI DE JOS	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0
LUNCOIU DE JOS	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LUPENI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADA	0	1	0	1	0	0	1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0
MESTECAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
MIHAILENI	1	1	0	0	0	1	0	1	0	1	0	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0
MINTIA	0	0	1	0	0	1	0	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0
MUCSOARA	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MARTINESTI	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORASTIE	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OHABA DE SUB PIATRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
OHABA PONOR	1	0	0	0	0	1	0	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
ORASTIOARA DE SUS	1	0	0	0	0	0	1	0	1	0	0	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0
PESTISU MIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PESTEANA	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PETRIUA	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POJOGA	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZAM	1	0	1	0	0	1	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0
POIENITA TOMII	1	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PIATRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PETROSANI	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PUJ	1	0	0	0	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0
RACHITOVA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RAPOLTU MARE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIBITA	0	1	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
RIU DE MORI	1	1	0	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0
ROSCANI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ROMOS	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SACARIMB	1	1	0	1	0	0	1	0	1	0	1	1	1	0	0	0	1	0	0	0	0	1	1	0	1	0	1	0

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Sa	Tv	Tc	Ta	Tm	Bsh	Bw	PT	Bsb	Bsf	Hb	Rc	Rf	Rd	Ra	En	Lvt	La	Lsv	Lp	Fm	Af	Nm	Nt	Cs	El	Vh	Va
SALASU DE SUS	SALASU DE SUS	1	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0
SARMIZIGETUSA	SARMIZIGETUSA	1	0	0	0	0	0	1	0	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
SIMERIA	SIMERIA	0	1	0	0	0	0	0	0	1	1	1	1	0	1	0	1	1	0	1	0	0	0	1	1	0	0	0	0
SIMPETRU	SINTAMARIA-ORLEA	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0
SINTUJALM	SINTUJALM	1	1	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0
SINTAMARIA-ORLEA	SINTAMARIA-ORLEA	1	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	1	1	0	0	0	0	1	1	0	0	1	1
SUSENI	RIU DE MORI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
SOIMUS	SOIMUS	0	0	1	0	0	1	1	0	1	1	0	1	0	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0
TAIA	PETRILA	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0
TURNAVA DE CRIS	VATA DE JOS	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
TELUCU INFERIOR	TELUCU INFERIOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOMESTI	TOMESTI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOPLITA	TOPLITA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTESTI	TOTESTI	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TURDAS	TURDAS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNIREA	UNIREA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
URICANI	URICANI	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARMAGA	CERTEU DE SUS	1	0	0	0	0	0	1	0	1	1	0	1	1	1	0	1	1	1	0	0	1	1	1	0	1	1	0	1
VALISOARA	VALISOARA	1	1	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0
VATA DE SUS	VATA DE JOS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
VATA DE JOS	VATA DE JOS	1	1	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0
VHTEL	VHTEL	1	1	0	0	0	0	1	0	1	0	1	1	1	0	0	0	0	0	1	0	0	1	1	0	0	1	1	0
VOKTA	VOKTA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VULCAN	VULCAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZAM	ZAM	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0
MARAMURES district																													
ARDUSAT	ARDUSAT	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
ARDUZEL	ULMENI	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIESUL DE CIMP	ARDUSAT	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BAIA MARE	BAIA MARE	1	1	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
BAIA SPRIE	BAIA SPRIE	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
BAIA SPRIE	BAIA SPRIE	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
BAITA	BAITA	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	0	1	1

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Se	Tv	Tc	Tk	Tm	Bob	Dev	Pf	Bab	Bar	His	Rr	Rt	Rd	Ra	En	Lve	La	Lvv	Lp	Pm	Af	Nh	Nc	Ca	Ei	Vb	Va
M-THIGNIS	BALIA SPIRIE	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
MISTRU	TAUTII-MAGHERAUS	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
PASUL GUTAI	BALIA SPIRIE	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
POSTA	REMETEA CHOARULUI	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PRIBILESTI	SATULUNG	0	1	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RECEA	RECEA	0	1	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
KEMECIOARA	REMETEA CHOARULUI	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
REMETEA CHOARULUI	REMETEA CHOARULUI	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
RUS	DUMBRAVITA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SABISA	SEINI	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SACALASENI	SACALASENI	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SALSIG	SALSIG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SASAR	RECEA	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
SATU NOU DE JOS	GROSI	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SATULUNG	SATULUNG	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
SEINI	SEINI	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SIRBI	FARCASA	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
TAUTH MAGHERAUS	TAUTII-MAGHERAUS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	
TOHAT	ULMENI	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ULMENI	ULMENI	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
ULMOASA	TAUTII-MAGHERAUS	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
VISEU DE SUS	VISEU DE SUS	1	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	
MURES district																													
ACATARI	ACATARI	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	1	0	0	0	0	1	1	0	1	0	0	
ALBESTI	ALBESTI	1	1	0	0	1	1	1	1	1	0	1	1	1	1	0	1	1	0	0	0	0	1	1	1	1	0	0	
APOLD	APOLD	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	1	1	1	0	0	0	
BALAU SERI	BALAU SERI	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
BAND	BAND	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	0	0	0	0	1	1	0	0	0	0	
BEZID	SINGEGIOGI DE PADURE	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	0	1	0	0	
BICHIS	BICHIS	0	1	0	0	0	0	0	1	0	1	1	1	0	1	0	1	1	0	0	0	0	1	0	1	0	0	0	
BRINCOVENESTI	BRINCOVENESTI	1	1	0	0	0	1	1	0	1	1	1	1	1	1	0	1	1	0	0	0	0	1	1	0	0	0	0	
CAPETI	SOVATA	1	1	0	0	0	1	1	0	1	1	0	1	1	1	0	1	1	0	0	0	0	1	0	0	1	0	0	
CEJAS	MICA	0	1	1	0	0	1	0	0	1	1	1	0	0	1	0	1	1	0	0	0	0	1	0	0	1	0	0	

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Se	Tv	Tc	Ta	Tb	Th	Boh	Bar	PI	Bsh	Bst	Ha	Hr	Ri	Rd	Ra	Eu	Lvr	La	Lrv	Lp	Pm	AT	Ns	Nt	Ca	EI	Yb	Ya
CIENUDU	BALAUȘERI	0	0	0	0	0	1	1	0	1	0	1	0	1	1	1	0	1	1	0	0	0	0	1	0	0	1	0	0	0
CIIBED	GHINDARI	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	0	1	1	0	0
CHINCUS	ADAMUȘ	0	1	0	0	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	0	0	0	1	1	0	1	0	0	0
CIBU	FINTINELE	1	1	0	0	1	1	0	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0
CFPAU	IERNUT	0	1	0	0	0	1	1	0	1	0	1	0	1	1	1	0	1	1	0	0	0	0	1	1	1	1	0	0	0
CLOASTER	SASCHIZ	1	0	0	0	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	0	0	0	1	0	0	1	1	1	0
CORUNCA	LIVEZINI	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	1	0	0	0
CRACIUNESTI	CRACIUNESTI	0	0	0	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0
CRARESTI	ADAMUȘ	0	0	0	0	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0
CUCERDEA	CUCERDEA	0	1	0	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0
CUND	BAHNEA	0	1	1	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	0	1	0	0
DANES	DANES	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	1	0	0	0	0	0
DEAJ	MICA	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0	0
DEDA	DEDA	1	0	0	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0
DELENI	POGACEAUA	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0
DUMITRENI	BALAUȘERI	0	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0
DUNBRAVIDARA	ERNEI	1	1	0	0	1	1	1	1	1	1	0	1	0	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0
EREMENI	MAGHERANI	1	1	0	0	1	1	1	1	1	1	0	1	0	1	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0
FARAGAU	FARAGAU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FINTINELE	FINTINELE	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0
GALISTI	ACATARI	1	1	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	1	1	0	1	0	0
GHIEORGHE DOJA	GHIEORGHE DOJA	0	0	0	0	1	0	0	1	0	0	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0
GHINDARI	GHINDARI	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0
GOGAN	BAINEA	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0
GREBENISU DE CAMPIE	GREBENISU DE CAMPIE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	0	0	0	0
GRUIȘOR	ACATARI	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0
HETIUR	SIGHISOARA	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	1	0	0
ICLANZEL	ICLANZEL	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	1	0	0	0
IERNUT	IERNUT	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	0	0	0	0
IOD	RĂSTOLITA	1	1	0	1	0	1	0	1	0	1	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	1	0
JACU	ALBESTI	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	1	0
LEORDENI	GHIEORGHE DOJA	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0
LUDUS	LUDUS	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	1	1	0	0

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	Sa	Tv	Tc	Ta	Tm	Bah	Box	PT	Bah	Baf	Hs	Rc	Rt	Rd	Ra	Ea	Lv	La	Lvv	Lp	Fab	Af	Nn	Nt	Cs	El	Vh	Vs
COCA	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CALINEȘTI-OAS	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATARCI	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COMLAUSA	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRAIDOROLT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRAIDOROLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRISENI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DACIA	0	0	0	0	0	1	0	0	1	1	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0
DOBA	0	0	0	0	0	1	0	0	1	1	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0
DECEBAL	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
VLTIS	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
ANDRID	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
PETRESTI	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
DINDESTU MIC	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
DOBA	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
DOBA	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
DOMANESTI	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
MOFTIN	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
CRAIDOROLT	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
ERIU-SINCRAI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
FOIENI	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GANAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
ACIS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GELU	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GHEIENCI	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
GAUAS	0	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TEREBESTI	0	1	1	0																								

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Ss	Tv	Tc	Ta	Tm	Bab	Boy	Pi	Bab	Baf	Ha	Rr	Ri	Rd	Ra	En	Lvr	La	Lsv	Lp	Pm	Af	Nh	Nt	Ck	Ei	Vb	Va
MOFTINU MARE	MOFTIN	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MOFTINU MIC	MOFTIN	0	0	1	0	0	1	0	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
NEGRESTI-OAS	NEGRESTI-OAS	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	1	0	
ORASU-NOU	ORASU-NOU	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
ORASU-NOU-VII	ORASU-NOU	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PAULIAN	DOBA	0	0	0	0	1	0	1	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
PETRESTI	PETRESTI	0	0	0	0	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
PIR	PIR	0	0	1	0	0	1	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PIRU NOU	PIR	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
PISCARI	TEREBESTI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
POKITITA	TIREAM	0	0	0	0	1	0	0	1	1	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	
PRILOG	ORASU-NOU	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RACSA	ORASU-NOU	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	
RADULESTI	CAUAS	0	1	0	0	1	0	1	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
REMETEA-OAS	ORASU-NOU	0	1	1	0	0	1	0	0	1	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
SANTAU	SANTAU	0	1	1	0	0	1	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	
SATMAREL	SATU MARE	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
SATU MIC	CRADOKOLT	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SINMICLAUS	MOFTIN	0	0	1	0	0	1	0	1	1	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	
SUDURAU	SANTAU	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
TARNA-MARE	TARNA MARE	0	1	1	0	0	1	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	
TARSOLT	TIRSOLT	0	0	0	0	0	1	0	1	1	1	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	
TASNAD	TASNAD	0	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TEGHEA	CRADOKOLT	0	1	1	0	0	1	0	1	1	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	
TEREBESTI	TEREBESTI	0	0	0	0	1	0	1	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
TIREAM	TIREAM	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
TIRAIAN	DOBA	0	1	1	0	0	1	0	1	1	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
TRIP	BIXAD	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TUR	NEGRESTI-OAS	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
TURT	TURT	0	1	1	0	0	1	0	1	0	1	0	0	1	1	0	0	1	1	0	0	0	0	0	0	1	0	0	
TURULUNG	TURULUNG	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
URZICENI	URZICENI	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	
VAGAS	TARNA MARE	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Sa	Tv	Tc	Tx	Tm	Bub	Bov	Pf	Beh	Barf	Ha	Br	Rt	Rd	Rx	Es	Lvr	La	Lvy	Lp	Pm	At	Ns	Nr	Cs	Et	Vb	Vx
VAMA	VAMA	1	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0
VEZENDIU	TIRLAM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SALAJ district																													
AGHURUS	MESEJENII DE JOS	1	0	0	0	0	1	0	1	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
AGRJ	AGRJ	1	0	1	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	1	1	0	0
BABENI	BABENI	1	1	0	0	0	1	0	1	0	1	0	1	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0
BALAN	BALAN	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0
BANISOR	BANISOR	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0
BIKSAU-MARE	GILGAU	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	1	1	0
BIZUSA-BAI	ILEANDA	1	0	1	0	0	1	1	0	1	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0
BOCSA	BOCSA	1	0	1	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0
BODIA	BUCIUM	1	0	1	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0
BOGDANA	BUCIUM	1	1	1	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	1	0	0
BOGHIS	NUFALAU	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	1	1	0	0	1	0
BORLA	BOCSA	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
BORLA	BORLA	1	0	1	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0
BRIGLEZ	SURDUC	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0
BRUSTURI	CREACA	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	1	0	0	0
BUCIUMI	BUCIUMI	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
BULGARI	SALATIG	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
CHECHIS	BALAN	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
CHENDREA	BALAN	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
CHENDREMAL	ZIMBOR	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
CUMARNA	ROMANASI	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0
CURENI	ZALHA	1	0	0	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	1	0
CIZER	CIZER	1	0	0	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	1	0
CRASNA	CRASNA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRISTOLT	CRISTOLT	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
CRISTOLTTEL	SURDUC	1	0	0	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
CRISTUR	CRISANI	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
DABICENI	ILEANDA	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	1	0
DESIDA	BOBOTA	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0
DOBCA	DOBRIN	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0

Annex 1 (continued) (the abbreviations correspond to table 2)

LOCALITY	TOWN	Ss	Tv	Te	Ta	Tm	Bab	Bov	Pf	Bab	Bar	Hs	Rp	Rf	Red	Ra	En	Lvr	La	Lsv	Lp	Em	At	Nh	Ni	Ch	El	Vd	Va	
FUNTELE	SALISTE	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	
GURA RIULUI		0	1	1	1	0	0	1	0	1	0	0	1	1	0	1	0	0	1	0	0	1	0	0	0	0	0	1	0	
IASAG	LOAMNES	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
IIOGHILAG		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
HOSMAN	NOCRICH	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
LOAMNES		0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
LOTRIDARA	TALMACIU	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	0	0	1	1	1	1	1	0	1	1	1	
MARPOD		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MEDIAS		0	0	0	0	0	0	1	0	1	1	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
MINDRA	LOAMNES	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1	0	1	0	0	
MIRSA	AVRIG	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
MOHU	SELIMBAR	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OCNA SIBULUI		0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
ORLAT		0	1	1	0	0	1	0	1	0	1	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0
PALTINIS	SIBIU	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	
PELISOR		0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
PODU OLT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
PORUMBACU DE JOS		1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0
PORUMBACU DE SUS		0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RACOVITA		0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
RASINARI		1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0
RIU SADULUI		1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
SADU		1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	0	0
SALISTE		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SCOREIU		0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SCOREIU	PORUMBACU DE JOS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEBESUL DE SUS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SEICA MARE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
SELIMBAR		0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SIBIEL		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SIBIU		1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SURA MICA		0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
TALMACIU		0	1	1	0	0	0	1	0	1	0	0	1	0	1	0	1	1	1	0	0	0	1	1	0	1	1	0	1	0

Table 2. Number of localities for each herpetofaunistic species in the 14 districts of Transylvania. Ss: Salamandras salamandra; Tv: Triurus vulgaris; Te: T. cristatus; Ta: T. alpestris; Tm: T. montandoni; Buh: Bombina orientalis; Buv: B. variegata; Pf: Pelobates fuscus; Bub: Bufo boreas; Buv: B. viridis; Ha: Hyla arborea; Re: Rana esculenta complex; Mr: R. temporaria; Rd: R. delmarina; Ra: R. arvalis; Eo: Erythronia; Lvr: Lacerta viridis; La: L. agilis; Lvv: L. vivipara; Lp: L. pratensis; Pm: Podarcis muralis; Af: Anguilla fragilis; Nr: Natrix natrix; Ne: N. tessellata; Cc: Coronella austriaca; Ee: Elaphe longissima; Vb: Vipera berus; Va: V. ammodytes

District	Nr of localities	Ss	Tv	Tc	Ta	Tm	Bob	Bov	Pf	Bub	Buf	Ha	Rr	Rt	Rd	Ra	Ea	Lvr	La	Lev	Lp	Pm	AU	Nn	Nt	Ca	Ei	Vh	Va	Total
Alba	57	32	37	17	10	0	3	50	1	48	22	14	26	44	30	0	0	29	47	14	0	38	41	44	17	21	23	29	1	638
Arad	72	12	32	25	8	0	21	19	9	19	31	31	41	13	28	5	9	18	34	0	0	9	16	34	10	14	9	11	1	458
Bihar	110	18	54	34	4	0	47	42	18	34	30	26	70	14	63	16	14	20	42	3	0	4	12	37	7	5	3	7	0	624
Bistrita-Nasaud	81	45	44	33	12	5	11	71	10	69	32	51	60	38	65	10	16	31	78	17	0	5	49	74	20	14	36	26	0	922
Brasov	9	3	2	4	1	0	0	7	4	7	5	3	7	6	8	0	1	4	6	0	0	3	5	6	0	2	3	3	0	90
Cluj	126	60	79	69	9	0	16	120	13	108	93	74	109	92	107	4	15	72	117	10	0	38	92	110	26	21	58	36	0	1548
Covarna	31	12	4	16	10	0	15	18	20	22	23	25	30	27	29	30	13	26	15	16	0	12	20	22	24	8	13	14	0	464
Harghita	45	17	43	43	37	0	1	45	0	40	44	15	43	44	41	5	1	1	45	42	0	15	15	27	3	20	12	44	0	643
Hunedoara	112	42	31	12	10	0	6	71	2	55	46	26	58	49	66	4	3	26	54	14	1	18	52	47	10	13	23	22	24	785
Maramures	62	7	13	14	5	5	0	52	0	12	9	21	26	7	9	1	3	7	23	6	0	1	6	17	2	2	4	5	0	257
Mures	89	41	49	39	7	6	69	53	39	78	57	76	65	52	79	3	10	72	79	8	0	0	81	54	17	56	26	15	0	1131
Satu-Mare	88	3	44	43	0	0	45	10	25	53	49	32	22	5	27	32	3	41	55	4	0	0	1	24	15	9	3	1	0	545
Sibiu	110	87	3	69	1	0	11	94	0	85	86	75	95	76	94	1	13	56	94	0	0	10	82	80	15	19	25	11	0	1182
Sibiu	54	13	14	13	13	0	2	23	2	22	10	8	26	20	16	10	19	15	16	9	0	9	14	12	6	8	11	14	3	328
Total	1046	392	449	431	127	16	247	675	143	652	537	477	678	487	662	121	130	418	705	143	1	162	486	588	172	212	249	238	29	9616