

**NEW SCIS PROPOSAL REGARDING THE ICHTIOFAUNA
AFTER THE FIRST STEPIC BIOGEOGRAPHIC SEMINAR
FOR ROMANIA, SIBIU (TRANSYLVANIA, ROMANIA) 9-12 JUNE 2008**

Doru BĂNĂDUC *, *András Attila NAGY* **,
and *Angela CURTEAN-BĂNĂDUC* **

* "*Lucian Blaga*" University of Sibiu, Faculty of Sciences, Department of Ecology and Environment Protection, Dr. Ioan Rațiu Street 5-7, Sibiu, Sibiu County, Romania, RO-550012, ad.banaduc@yahoo.com

** "*Milvus Group*" Bird and Nature Protection Association, Crinului Street 22, Târgu Mureș, Mureș County, Romania, RO-540343

*** "*Lucian Blaga*" University of Sibiu, Faculty of Sciences, Department of Ecology and Environment Protection, Dr. Ioan Rațiu Street 5-7, Sibiu, Sibiu County, Romania, RO-550012, ad.banaduc@yahoo.com

KEYWORDS: Romania, Stepic Biogeographic Region, Natura 2000, SCIs, *Alosa tanaica*, *Umbra krameri*, *Aspius aspius*, *Gobio albipinnatus*, *Gobio kessleri*, *Rhodeus sericeus amarus*, *Cobitis taenia*, *Misgurnus fossilis*, *Gymnocephalus schraetzer*, *Zingel streber* and *Zingel zingel*.

ABSTRACT

The main objectives of the European Community in the environmental policy are the protection, conservation and improvement of environment quality, in the context of the rational use of the resources and also of the services of the ecosystems. In the past few decades the biodiversity protection was one of the main goals in this respect.

The aim of this paper is to give some data and related arguments for new Natura 2000 sites proposal, for 11 fish species. At the Stepic Biogeographic Seminar for the Romanian national territory (held at the "*Lucian Blaga*" University of Sibiu, Sibiu, 9-12 June 2008), it was concluded that the area of distribution areas of some fish species are not enough covered with the already proposed and accepted Natura 2000 sites, so additional proposals were requested by the European Union representatives.

Consequently, this article proposes some new Natura 2000 sites, to be considered at the second Stepic Biogeographic Seminar for Romania (scheduled for the end of 2012).

The suggested European Community interest sites in this article are based on the author's field data using specific criteria (well preserved fish populations; stable fish populations; healthy fish populations; typical natural habitats; relatively low human impact; favourable geographical position). The following fish species of conservative interest were included: *Alosa tanaica*, *Umbra krameri*, *Aspius aspius*, *Gobio albipinnatus*, *Gobio kessleri*, *Rhodeus sericeus amarus*, *Cobitis taenia*, *Misgurnus fossilis*, *Gymnocephalus schraetzer*, *Zingel streber* and *Zingel zingel*.

REZUMAT: Noi propuneri de SCI-uri, referitoare la ihtiofaună după Seminarul Biogeografic Stepic pentru România, Sibiu (Transilvania, România) 9-12 iunie 2008.

Principalele obiective ale Comunității Europene în domeniul mediului sunt protecția, conservarea și îmbunătățirea calității mediului, în contextul utilizării raionale a resurselor și de asemenea a serviciilor ecosistemelor. În ultimele decenii, protecția biodiversității a fost unul dintre principalele obiective în această privință.

Scopul principal al acestei lucrări este acela de a oferi date și argumente în favoarea propunerii unor noi situri Natura 2000 pentru 11 specii de pești. La Seminarul Biogeografic pentru regiunea Stepic, pentru teritoriul național al României (care s-a desfășurat la Universitatea „Lucian Blaga” din Sibiu, în 9-12 iunie 2008) s-a decis faptul că arealele unor specii de pești sunt insuficient acoperite de situri Natura 2000 propuse și acceptate, astfel propuneri suplimentare au fost solicitate de reprezentanții Uniunii Europene.

Ca o reacție la această situație, această lucrare propune unele situri Natura 2000 noi, pentru a fi luate în considerare la un potențial Seminar Biogeografic pentru regiunea Stepic a României.

Propunerile de situri de interes comunitar, prezentate în această lucrare, se bazează pe date de teren ale autorilor și criterii specifice (populații de pești bine menținute, stabile și sănătoase; habitate naturale tipice; impact antropic relativ scăzut; poziție geografică favorabilă). Au fost incluse următoarele specii de pești de interes conservativ: *Alosa tanaica*, *Umbra krameri*, *Aspius aspius*, *Gobio albipinnatus*, *Gobio kessleri*, *Rhodeus sericeus amarus*, *Cobitis taenia*, *Misgurnus fossilis*, *Gymnocephalus schraetzer*, *Zingel streber* and *Zingel zingel*.

INTRODUCTION

The primary aims of the European Community administration representatives in the environment field of interest are the protection, conservation and improving of the environment elements and structure quality, for a better use of the natural resources and services of the ecosystems, including the aquatic ecosystems.

During the last decades the biodiversity was one of the main issues in this respect.

To achieve this approach regarding the European Community environmental strategies and policies, the most up to date scientific and technical information were considered.

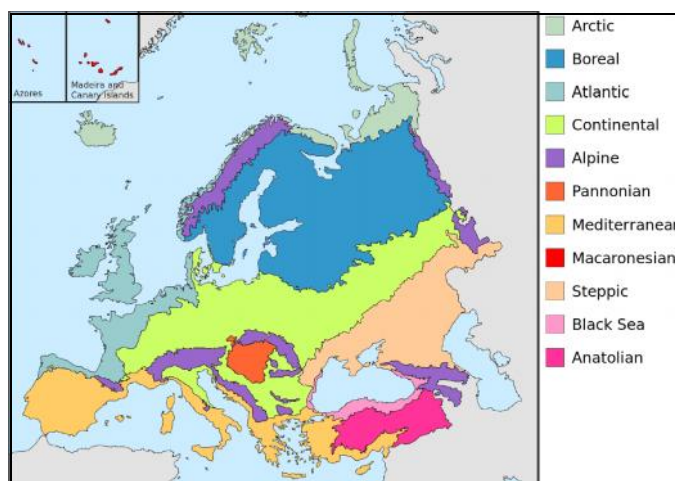


Figure 1: Europe biogeographic regions; European Environment Agency - www.eea.eu.in

The action frame at the European Community level, to handle the biodiversity issue was established based on the Habitats Directive (92/43/EEC) and Birds Directive (79/409/EEC). These two very important European Directives have as the main objective to conserve the biodiversity in the European Union based on a protected areas network, namely the Natura 2000 net, to protect essential habitats and species characteristic for all the European biogeographic regions: Arctic, Boreal, Atlantic, Continental, Alpine, Pannonian Mediterranean, Macaronesian, Steppic, Black Sea and Anatolian (Fig. 1).

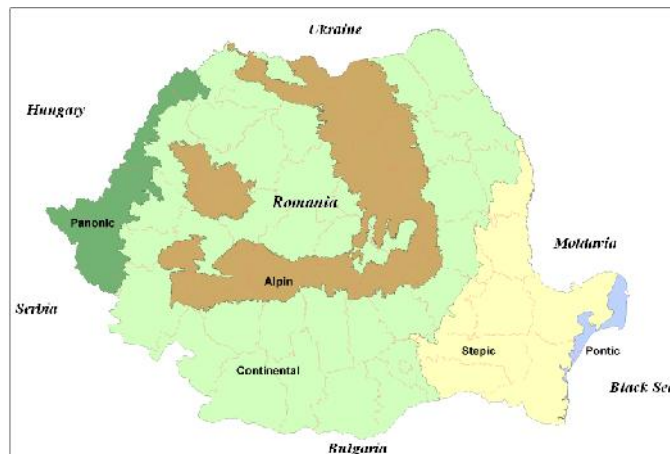


Figure 2: Biogeographic regions of Romania; after Ministry Order 776/2007, Annex 2.

MATERIALS AND METHODS

Romania has the highest biogeographic diversity of all the European Union countries, comprising a total of five biogeographic regions: Continental, Alpine, Pannonian, Pontic and Stepic (Fig. 2). This country offer to the European natural heritage an around of: 47% of the national territory covered by natural and semi natural ecosystems; 780 types of habitats; 3700 superior plant species; 33085 invertebrate species and 717 vertebrate species. (B n duc, 2001, 2006, 2007a, 2007b)

The Stepic biogeographic region is ranging eastern Romanian national territory across southern Moldavia, Ukraine, Russia and the west part of Kazakhstan to the edges of the Caspian Sea. It is part of a longer stripe of stepic vegetation that continues all the way across Asia, to China and Mongolia. 3% of the European Pontic-Caspian Steppe Region is within the European Union in the present, completely in the eastern part of Romania (Fig. 2). The steppic climate is generally continental in character with cold and moderately wet winters contrasting with warm, dry summers. The constant winds that blow across the vast open plains and undulating plateaus can have a major influence on daily temperatures but in general they vary from -15°C in January to $+30^{\circ}\text{C}$ in July. (Sundseth and Creed, 2008)

In the Romanian geographical area, there are few main directions through which the European Union Natura 2000 net initiative can ameliorate the nature protection: expand of the natural areas surface; the realisation and implementation of optimum management plans for all these protected areas; governmental and nongovernmental institutional capacity building; general and specific raising awareness.

One main element of the implementation of the Habitat Directive is the establishment of an optimum Natura 2000 network of sites on the Romanian national territory.

Despite the fact that the Biogeographic Seminars for the Romanian territory were done (held at the “*Lucian Blaga*” University of Sibiu, in 9–12 June 2008), it was concluded after the end of this very important official technical meeting, the fact that the areals of some fish species of conservative interest were not sufficiently covered by Natura 2000 sites, so new sites proposals were asked by the European Union representatives.

As a result this scientific article deal with the proposal of some new such potential Natura 2000 sites, to be accepted at the second Stepic Biogeographic Seminar for the Romanian territory, event which should be held at the end of 2012.

The suggested sites of European Community interest of this scientific paper are based on data gathered from last years several field campaigns and based on specific criteria (well preserved fish populations; stable fish populations; healthy fish populations; typical natural habitats; relatively low human impact; favourable geographical position), regarding the following protected fish species: *Alosa tanaica*, *Umbra krameri*, *Aspius aspius*, *Gobio albipinnatus*, *Gobio kessleri*, *Rhodeus sericeus amarus*, *Cobitis taenia*, *Misgurnus fossilis*, *Gymnocephalus schraetzer*, *Zingel streber* and *Zingel zingel*.

MATERIALS AND METHODS

In the European Natura 2000 initiative context the following site selection criteria were used for this specific study: well preserved fish (of Community interest - oCi) populations; stable fish (oCi) populations; healthy fish (oCi) populations; typical natural habitats (oCi); lowest (as possible) human impact presence; favourable geographical position (possibility of species spreading in more than one hydrographic watersheds); best option for species/habitat (oCi) in relation with the needed future Natura 2000 areas specific management.

This paper is based on data gathered during the last seven years.

It should to be stated the fact that no complete data were available in order to definitely and comprehensively establish and border different local stable fish populations. Further multiannual fish populational field studies are still needed for the needed specific quantitative aspects fulfilment.

This article was focused on the following fish species of Natura 2000 initiative conservative interest: *Alosa tanaica*, *Umbra krameri*, *Aspius aspius*, *Gobio albipinnatus*, *Gobio kessleri*, *Rhodeus sericeus amarus*, *Cobitis taenia*, *Misgurnus fossilis*, *Gymnocephalus schraetzer*, *Zingel streber* and *Zingel zingel*; Annex II fish species.

The fish individuals were caught with specific fishing nets (active or/and passive fishing nets) or through electrofishing, followed by in situ identification to species level and released unharmed immediately afterward in their natural habitats for obvious conservative reasons.

RESULTS AND DISCUSSIONS

Umbra krameri Walbaum, 1792 - Natura 2000 code 2011 (RO-igănu, GB-European Mudminow; DE-Europäischer Hundfish, HU-lápi póc, UA-babo ka).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify this species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context.

General descriptive fact sheet. The European Mudminnow can be identified based on the following taxonomical characteristics: Small fish with a rounded snout. The head is laterally compressed. The body is moderately laterally compressed. The interorbital space is slightly convex. The mouth is small, terminal and also a little oblique. Small jaws and also relatively small teeth. Large gill's openings. The dorsal fin is set far back over the insertion of the pelvic fins and the pectoral fins are set down low. The caudal peduncle is laterally compressed. The pectorals are round shaped. The anal and caudal fins edges are also round shaped. The whole body including the head is covered with relatively large scales. No lateral line. The body colour is dark-brown with dark shadows. The ventral side is yellowish. A series of dark spots of variable shape, on the body flanks form two longitudinal parallel irregular lines. In the middle of the body is a light coloured line. The fins are yellowish-greyish or brown. At the base of the dorsal and caudal fins is a dark transversal line. As main meristic features can be considered: D 15 - 17 (18); A 6 - 9; scales in lateral line (33) 34 - 35 (36). It can reach over 15 cm in length and can live around three to five years (B n rescu 1964; Lelek, 1980)

Concerning the *Umbra krameri*, at the Stepic Biogeographic Seminar held in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient minor.

Proposed sites. Tânganu Rivulet in Cernica Forest. Vasilași wetlands areas. Lower Mostiștea River.

More scientific researches can improve this proposal with new sites, regarding this rather elusive fish species.

Aspius aspius (Linnaeus, 1758) - Natura 2000 code 1130 (RO-avat, haut, aun, gonaci, pe te-lup, bu oi, guran; DE-Raapf, Rapen, FR-Aspe; GB-Asp, RU-Zherekh, UK-Bilyzna, HUBalin, CS-Bolen).

A general descriptive fact sheet is presented below due to the fact that this species can be misidentified with other species (*Rutilus rutilus*, *Leuciscus idus*, *Leuciscus cephalus* or *Vimba vimba*) by the European Natura 2000 sites administrations members.

General descriptive fact sheet. The body of this fish species is elongated and slightly laterally compressed. The head dorsal profile smoothly get up till the head is over where it suddenly get raised up forming a kind of humpback. The head length represent 22 - 27 % of the body (excluding the caudal fin) length. The eyes are small and are placed laterally and ahead. The forehead is almost flat. The snout length represents 25 - 31 % of the head length. The mouth is big, terminal and upward oblique, it ends under the eye. Thin and continuous lips. The inferior jaw has a protuberance which is fitting in a cavity of the superior jaw, this morphological adaptation help the fish to grab the prey. The dorsal fin insertion is situated closer to the caudal fin base than to the top of the snout. The dorsal fin extremity is concave. The pectoral fins did not touch the base of the ventral fins; their length represent 17 - 20 % of the body length. The ventral fins represent 13 - 17 % of the body length. The anal fin extremity is strong concave. The caudal is deep holed. The scales are thin but well fixed. The back is dark-olive, silvery flanks, the ventral part white. The dorsal and the caudal fins are dun, the ventral and anal fins are colourless or pale reddish, the pectoral fins colourless. The lips are hoary. Usually this species can reach a length of 30 - 40 cm and a maximum of 80 cm. (B n rescu and B n duc, 2007)

Concerning the species *Aspius aspius*, at the Stepic Biogeographic Seminar held in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient moderate. One new enlarged site in this respect is proposed below.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality).

More scientific researches can improve this proposal with new sites.

Gobio albipinnatus (Lukasch, 1933) - Natura 2000 code 1124 (RO-porcu or de es; DE-Weißflossiger Gründling; GB-White-finned gudgeon; HU-halványfoltú küll ; UK-Pinchkur svetloplavtsovyi; RU-Peskar svetloplavnikovyi).

A general descriptive fact sheet is also presented here for this species due to the fact that this species can be misidentified with other species of the genus *Gobio*, by the European Natura 2000 sites administrations members, and these misidentifies should be avoided.

Descriptive elements. The body and the caudal peduncle of this fish species are relatively high and laterally compressed. The peduncle height is a little higher in comparison with the thickness at the level of the annal fin posterior edge. 7 exceptional 8 divided rays in the dorsal fin. There are four scales between the lateral line and the ventral fins. In Romania can be found *Gobio albipinnatus vladykovi* Fang 1943. Convex dorsal profile. The maximum height of the body is situated at the dorsal fin insertion. The snout is short and obtuse. The eyes are big and close, looking more upward. The whiskers reach in general the posterior edge of the eye. The caudal peduncle is slightly laterally compressed. The caudal fin is profound holed, its superior lobe being longer than the inferior one. The pectoral fins do not reach the ventral fins insertion, the ventral fins outgrow the annus but do not reach the annal fin. The annus is more closer to the ventral fins than the anal fin. The superior part is light yellowish-greyish. The dorsal side of the head is darker greyish, with even darker spots and lines. On flanks in general 7 - 8 round spots. The lateral line scales have two black spots not very well marked. The ventral face is white. On the dorsal and caudal fins rays are two rows of black spots, also not very well marked. It can reach 13 cm in length. (B n rescu and B n duc, 2007)

Regarding the *Gobio albipinnatus* species, at the Continental Biogeographic Seminar meeting for Romania, from Sibiu (Transylvania, Romania) 9–12 June 2008, there were underlined some specific conclusions about the proposed and accepted sites as insufficient moderate status. More sites were required. Some new sites are proposed in this respect below.

Proposed sites. Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality).

Gobio kessleri Dybowsky, 1862 - Natura 2000 code 2511/1124 (RO-porcu or de nisip, GB-Kessler's gudgeon DE-Kessler Gründling, RU-Dnestrovskii dlinnosyiy peskar, HU-homoki küll , UA-Pichkur dunaiskyi dovgoosyi).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context. This species can be very easy confused with other species of the genus *Gobio*.

General descriptive fact sheet. The body is low and thick or relatively high and slightly laterally compressed. The caudal peduncle is thick and cylindrical, its thickness in

general bigger than the minimum height. The eyes have variable dimensions, usually significant smaller than the interorbital space. The lateral scales are much higher than longer. The whiskers have a variable length. The caudal lobes are almost equal (excepting *G. k. banaticus*).

There are three subspecies in Romania: *G. k. kessleri*, *G. k. banaticus* and *G. k. antipai* (see B n rescu, 1964). (B n rescu and B n duc, 2007)

Concerning the *Gobio kessleri*, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient moderate.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality); the Buz u River from Gr di tea locality to the confluence with the Siret River.

Rhodeus sericeus amarus (Bloch, 1782) - Natura 2000 code 1134 (RO-boar , GB-Bitterling; DE-Bitterfish, FR-Bouvière, HU-szivárványos ökle, UA- Gorchak).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context.

General descriptive fact sheet. High and accentuated lateral compressed body. The dorsal profile is convex, drawing up from the ti of the snout to the dorsal fin insertion; behind the dorsal fin the profile descent accentuated. Laterally compressed head. The eyes are situated in the anterior half of the head. The forehead between the eyes is high, splayed, slightly convex. Small, subterminal, crescent shaped with thin lips mouth. The dorsal fin is inserted in general at equal distances from the tip of the snout and the caudal fin base. The edge of the dorsal fin is slightly convex. The pectoral fins are short, rounded at the top. The ventral fins insertion are situated under the dorsal fin insertion or very little before it; their tops reach or almost reach the anterior edge of the annal fin. The annal fin insertion is under the middle of the dorsal fin; its edge is slightly concave. The scales are big, more higher than longer, persistent. The chest is covered with smaller scales. The lateral line is short. The dorsal part of the body and of the head are greysh-yellowish, sometimes with a greenish shade, the flanks are white, the dorsal and caudal fins are grey, the other fins with a redish shade. Along the body's posterior half part and of the caudal peduncle is an obvious greenish line. It can reach 7.9 cm in length. (B n rescu and B n duc, 2007)

Concerning the *Rhodeus sericeus amarus* species, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient moderate.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality).

Cobitis taenia Linnaeus, 1758 - Natura 2000 code 1149 (RO- zvârlug , fîs , cîr , GB-Spined Loach, DE-Dorngrundel, FR-Loche de rivière, UK-Shtschipovka; BG-Piskal, HU-Vágó csík, UA- Shtschipovka).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context. This species can be very easy confused with other species of the genus *Cobitis*.

General descriptive fact sheet. The dorsal and ventral profiles are almost horizontal. The inter-orbitary space is plain. The two halves of the inferior lip are subdivided in 3 - 4 lobes. The third pair of whiskers are the longest. The caudal peduncle in its posterior part have a dorsal and a ventral streamline, the last one more developed. The ventral fin insertion is situated a little backward in comparison with the dorsal fin insertion. The caudal fin is truncated or slightly holed. The pectoral and ventral fins are rounded. The lateral line is short, in general did not overdraw the pectoral fin. The body background is white-yellowish. The dorsal spots are small, rectangular or rounded, close, in variable number (13 - 24). The lateral pigmentation of the body consist of four zones. At the caudal fin base in the upper corner, is a clear veryical black intense spot. On the head are small spots and an oblique line, from the backhead to the mouth. It can reach 12 centimeters in length. (B n rescu and B n duc, 2007)

Concerning the *Cobitis taenia*, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient moderate.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality). Siret River in the whole Steppic region.

Misgurnus fossilis (Linnaeus, 1758) - Natura 2000 code 1145 (RO- ipar, chi car, vârlan, GB-Weatherfish; DE-Schlammbeisser, FR-Kerlèche, BG-Zmiorche; HU-réti csík, UA-Viun).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context.

General descriptive fact sheet. Prolongued and thick body with almost uniform height. The dorsal and the ventral profiles are almost horizontal. The head is thick, slightly compressed lateraly. The nostrils are more closed to the eyes than to the tip of the snout. The anterior nostril is tubular, round, covered by a skinny operculum. The mouth is inferior and crescent. The upper lip is fleshy and continuous. The lower lip is fleshy with two pairs of flashy lobes; the anterior pair (and median) short and thick, the posterior pair long and thin whiskers like. The caudal peduncle is lateraly compressed, mostly in its posterior part. The caudal dorsal and ventral peduncle edges are straiten and form two faty streamlines which is looking like a elongation of the caudal fin. The dorsal and ventral fins are situated at the same level. Small scales. Hardly visible lateral line. The dorsal side is dark dun, with small sooty spots. This dun area is limited by a narrow longitudinal line, almost black, which lay from the superior corner of the operculum to the caudal fin; in the posterior part this line is interrupted by isolated spots. Under this line, the body is light dun; is following a new sooty line, very broad, continuous from the eye to the caudal fin base. Under this line is yellowish-rusty spotted

with brown dots. The head is light-fawn with small dark spots. Smoky fins with dark spots. The females reach 30 cm, the males are smaller. (B n rescu and B n duc, 2007)

Concerning the *Misgurnus fossilis*, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient moderate.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from VI de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârda locality). Siret River in the whole Steppic region.

Gymnocephalus schraetzer (Linnaeus, 1758) - Natura 2000 code 1157 (RO- r sp r, pîrlu, b los, firizar, GB-Schraetzer; DE-Schraitzer, HU-Selymes durbincs, UA- Yersh polosatyi).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context. This species can be relatively easy confused with other species of the genus *Gymnocephalus*.

General descriptive fact sheet. The body is relatively prolonged. The dorsal profile draw up almost directly from the tip of the snout to the dorsal fin insertion, after which descent. Looking from lateral the head look like a triangular shape. The ventral profile is almost horiyontal. The eyes are located more in the posterioir part of the head, looking more lateraly. The mouth is small and terminal, its opening is situated anteriour to the nostrils. The dorsal side and the flanks are yellow and the ventral side almost white. On the dorsal side of the body are three thin longitudinal black-blueish lines. Two, sometimes three of them are intrerrupted. On the hard dorsal fin membrane part are three rows of round, big and black spots. The soft part of the dorsal fin membrane and the other fins are colourless. The iris is black. It can reach a maximum of 24 cm of the body length. (B n rescu and B n duc, 2007)

Concerning the *Gymnocephalus schraetzer*, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient minor.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from VI de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Râu Siret de la Buhoci la Furnicari.

Zingel streber (Siebold, 1863) - Natura 2000 code 1160 (RO-fusar, fus, prundar, pe te de piatr , GB- Streber; DE- Ströber, HU- kis bucó, SK-Kolok malý, UA- Chop malyi).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context. This species can be relatively easy confused with other species of the genus *Zingel*.

General descriptive fact sheet. Elongated body, skewer-like shape. The dorsal profile of the body ascend slightly, uniform and straight from the tip of the snout to the first dorsal fin insertion. The ventral profile is almost plain. The head is much broad than high, from an above

perspective is triangular. The snout is obtuse, width in the posterior part, narrow in the anterior part. The mouth is inferior crescent-like shape and small. The caudal peduncle is long and thin, round in section. The dorsal fins are distanced. Both dorsal fins are triangular shaped, high anterior and decreasing gradually to the posterior part. The pectoral fins with truncated edge. The ventral fins are inserted behind the pectoral fins insertions. The scales are small. The lateral line is complete and plain. The superior side of the head and of the body, and the majority of the flanks are brown-greyish with a green nuance. On this background are five wide obvious sooty lines. The ventral side is white and the fins are colourless. It can reach over 20 cm in length.

Concerning the *Zingel streber* species, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient minor.

Proposed sites. The proposed sites include the confluence area of the Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality). Siret River from Adjutul Vechi locality to Burcioasa locality. Siret River from Buhoci locality to Furnicari locality.

Zingel zingel (Linnaeus, 1766) - Natura 2000 code 1159 (RO- fusar mare, pietrar, pe te cu dou nume, GB-Zingel; DE-Zindel, CS-Veliki vretenac; HU-nagy bucó; BG-Uretenarka; SK-Kolok veľký; UA-Chop.).

A general descriptive fact sheet is presented here due to the fact that some of the Natura 2000 areas administrations members are not in the position to identify all these species and the needed associated ecological and biological assessment, monitoring and management activities are not possible in this context. This species can be relatively easy confused with other species of the genus *Zingel*.

General descriptive fact sheet. Elongated body, skewer-like shape, almost circular in section. The head is oval. The dorsal fins are relatively close distanced. Both dorsal fins are triangular shaped, high anterior and decreasing gradually to the posterior part. The pectoral fins with truncated edge. The ventral fins are inserted behind the pectoral fins insertions. The scales are small, on the ventral side they reach the ventral fins base. The dorsal side and the majority of the flanks are brown-greyish. The ventral side and the abdomen are yellowish. It can reach a maximum body length of 49 cm. (B n rescu and B n duc, 2007)

Concerning the *Zingel zingel* species, at the Continental Biogeographic Seminar helded in Sibiu, Transylvania, Romania, in 9–12 June 2008, there were raised some conclusions about its proposed sites status as insufficient minor.

Proposed sites. Danube River with the Prut River (on Prut River from Vl de ti locality to the confluence with the Danube) and with Siret River (on the Siret River from the confluence upstream to the N moloasa locality); Danube-M cin sector (from upstream of Giurgeni to the proximity of the Smârdan locality). Siret River in the entire stepic biogeographic region.

ACKNOWLEDGEMENTS

The authors thank to the Faculty of Science of the Lucian Blaga University of Sibiu, NGO Ecotur Sibiu and WWF-DCP for the support during the field campaigns. The first author is grateful to the European Committee representatives and Topic Center representatives for the official allowance at the Stepic Biogeographic Seminars for Romania and Bulgaria.

REFERENCES

1. B n duc D., 2006 – Preinventory for a draft list of Natura 2000 (SCI) sites for fish species, edited by Bureau Waardenburg and Ameco Holand, 62.
2. B n duc D., 2007a – Fish of Natura 2000 network interest in Romania, in Romanian NATURA 2000 NGO Coalition contribution for the SCIs designation, Eds. Curtean-B n duc Angela and Florescu Florentina, Ed. Alma Mater Sibiu, ISBN 978-973-632-402 - 4, 147 - 182 pp.
3. B n duc D., 2007b – *Alosa pontica*; *A. tanaica*; *Aspius aspius*; *Barbus meridionalis*; *Cobitis tenia*; *Gobio albipinnatus*; *G. kessleri*; *G. uranoscopus*; *Misgurnus fossilis*; in Combroux, I., Thiry, E. and Toia, T. (eds.) *Caiet de habitate i specii*, Edit. Balcanic. Timi oara, România, ISBN 978-973-85742-6-7, 57-78 pp.
4. B n duc D., 2001 – Specii de pe ti dulcicoli i migratori în mediul dulcicol, de interes comunitar, prezente în România, în *Natura 2000 în România, Conservarea speciilor i habitatelor acvatice*, coordonator Curtean-B n duc Angela, Editura Alma Mater Sibiu, ISBN 973-632-243-2, 72 - 81. (in Romanian)
5. B n duc D., 2008 – *Umbra krameri* Walbaum, 1792 a Natura 2000 protected fish species, in Romania, *Acta Ichtiologica Romanica* III, 33-44.
6. B n rescu M. P. and B n duc D., 2007 – Habitats Directive (92/43/EEC) fish species (Osteichthyes) on the Romanian territory, *Acta Ichtiologica Romanica* II, B n duc D. (ed.), 43-78.
7. Sundseth K. and Creed P., 2008 – *Natura 2000 Protecting Europe's biodiversity*, European Commission, Directorate General for the Enviroment, ISBN 9789279083082, 296.

