

Land snail *Acicula parcellineata* (Architaenioglossa: Cyclophoroidea: Aciculidae) in Ukraine: distribution, variability, habitat preferences and conservation status

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ABSTRACT. All available data and most of materials on *Acicula parcellineata* from Ukraine are reviewed. Thirteen areas inhabited by the species are reported for Ukraine, some of which include several known sites. Five of these areas were not reported before. Map of general distribution of *A. parcellineata* is provided (outside Ukraine based on published data). Habitat preferences of this species are reviewed, it occurs in Ukraine almost exclusively in forests with presence of beech, on altitude 300–1100 m. Conservation status of *A. parcellineata* in Ukraine is shown to be “Near Threatened” according to IUCN criterions, it is recommended to be included into the next edition of Red Book of Ukraine. Shells’ measurements of *A. parcellineata* are provided and compared with related *Platyla jankowskiana*. The later species is discussed; it seems to be possible that it represents large abnormal specimens of *A. parcellineata*.

Introduction

Land snail *Acicula parcellineata* (Clessin, 1911) is a minute inhabitant of the forest leaf-litter distributed mainly in the Eastern and Northern Carpathian Mountains. It is known to occur in Ukraine, Romania, Poland, Slovakia and Czechia [Boeters *et al.*, 1989; Wiktor, 2004; Syssoev, Schileyko 2009; Balashov, Gural-Sverlova, 2012; Welter-Schultes, 2012; Horsák *et al.*, 2018]. It was also reported to occur in the Caucasus: in Georgia [Jackiewicz, 1974; Boeters *et al.*, 1989]. Moreover, *Acicula bakanense* Steklov, 1966 from Miocene of Ciscaucasia is considered to be conspecific with *A. parcellineata* [Boeters *et al.*, 1989] and similar shells are known from the Miocene of eastern Podolian Upland in Central Ukraine [Gozhik, Prysiazhnjuk, 1978]. However, recent presence of *A. parcellineata* in the Caucasus remains unconfirmed and not mentioned in the last reviews [Syssoev, Schileyko 2009; Welter-Schultes, 2012; Walther *et al.*, 2014], perhaps the report from the Caucasus was referring to *Acicula limba-ta* Reuss, 1860 or was a result of mixed labels.

Although global conservation status of *A. parce-*

lineata is considered to be “Least Concern” [Cuttellod *et al.*, 2011], it was considered “Critically Endangered” for Czechia [Beran *et al.*, 2017], “Endangered” for Slovakia [Šteffek, Vavrová, 2006], “Near Threatened” for Ukraine [Balashov, 2016a] and “Data Deficient” for Poland [Wiktor, Riedel, 2002]. For Romania list of molluscs’ species that require protection doesn’t exist. Therefore, in all countries where conservation status of *A. parcellineata* was estimated it was considered to be regionally threatened or potentially threatened.

There are relatively few known existing locations of *A. parcellineata*: 7 in Poland [Wiktor, 2004], 2 in Czechia, 7 isolated locations and one large area of continuous distribution in Slovakia [Horská *et al.*, 2018], about 5 locations in Romania [Boeters *et al.*, 1989; Cameron *et al.*, 2011; Gheoca, 2016]. In the Ukrainian Carpathians *A. parcellineata* is known to occur for a long time, however only several precise locations were reported and actual distribution remains unclear. Boeters *et al.* [1989] provided 3 locations of *A. parcellineata* in Ukraine following Sitsch [1925] and Jackiewicz [1974], all in the Carpathians: near Statyi Mizun, Tatariv (Tatarow) and Yamna villages (last two are very close). Baidashnikov [1985, 1989a] has provided significant data on the habitat preferences of *A. parcellineata* in Transcarpathian region of Ukraine, although without mentioning any exact locations, except that *A. parcellineata* was mentioned to occur in Ugolka branch of the Carpathian Biosphere Reserve [Baidashnikov, 1989b]. Gural-Sverlova and Gural [2012] provided 2 locations: in Kuziy branch of the Carpathian Biosphere Reserve and in vicinities of Lviv city (outside the Carpathians, western part of Podolian Upland). In work of Cameron *et al.* [2010] significant amount of *A. parcellineata* specimens was mentioned to be collected on the several sites within Kuziy and Ugolka branches of the Carpathian Biosphere Reserve. In recent revision of Polevina’s 1959 collection it was revealed that her specimens

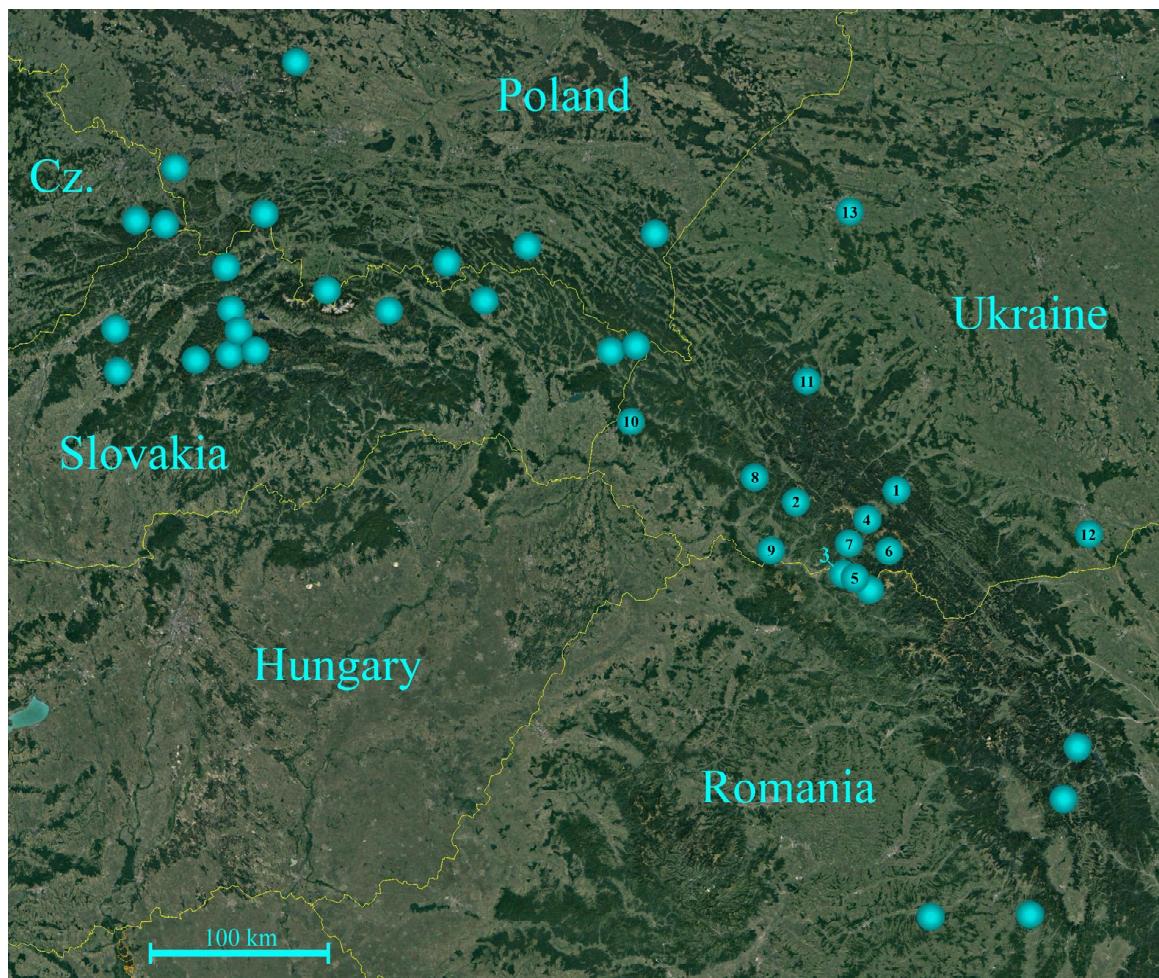


FIG. 1. Distribution of *Acicula parcellineata*. 1-13 – see Table 1.

РИС. 1. Распространение *Acicula parcellineata*. 1-13 – см. Табл. 1.

were collected in the vicinities of Nevytske village near Uzhgorod [Gural-Sverlova, 2016]. Balashov [2016a] provided lists of terrestrial molluscs for Ugolka, Kuziy, Marmarosh and Svydovets branches of the Carpathian Biosphere Reserve that included *A. parcellineata*. Therefore, in existing literature 9 locations inhabiting by *A. parcellineata* were mentioned more or less precisely from Ukraine, some of which being very close. However, we have significant data that was not covered in these sources.

The goal of our study was to review all available data and materials on *A. parcellineata* from Ukraine, to provide detailed distribution and habitat data and to produce estimation of its conservation status on the national level in accordance with IUCN criterions [IUCN, 2012a, b].

Material and methods

Studied material and data on *A. parcellineata* from Ukraine are provided in Table 1 and on the map (Fig. 1). Material was collected, handled and

identified using common methods of terrestrial molluscs studies [Likharev, Rammelmeier, 1952; Kerney, Cameron, 1979; Balashov, 2016b]. On each studied by us site, in addition to search in the field, we were taking samples of the leaf litter for further careful extraction of the minute snails under bright light (with aciculids it usually gives better results than searching directly in the field).

We have found *A. parcellineata* and studied its habitats in 14 sites near Tatariv (2015) and in 2 sites on Svydovets (2011). For other sites data about habitats (Table 2) is based on labels, published data and on A. Baidashnikov's field notebooks.

Near Tatariv we collected standardized samples on the 20 forest sites (on 14 of them *A. parcellineata* was found, Table 2) by searching in the field during the same amount of time and taking same amount of litter on each site. Here we are not paying close attention to this data, which perhaps will be published later in a separate paper, but number of collected specimens on each site near Tatariv (Table 2) is comparable.

Table 1. Areas in Ukraine where *Acicula parcelineata* was reported.Таблица 1. Территории в Украине, на которых отмечена *Acicula parcelineata*.

No	Area	Coordinates (approx.)	Years	Sites or reports	Specimens	Material
1	Carpathian National Nature Park (near Tatariv and Yamma villages; Ivano-Frankivsk region)	48°22'35"N 24°30'50"E	1914-1933, 2015	19	50+*	IZAN; Sitsch, 1925; Jackiewicz, 1974
2	Ugolka branch of the Carpathian Biosphere Reserve (Transcarpathian region)	48°18'10"N 23°44'35"E	1983, 2003	13	21+	ZIN, IZAN, NMNH, ZMMU; Cameron <i>et al.</i> , 2010
3	Kuziy branch of the Carpathian Biosphere Reserve (T. region)	47°56'35"N 24°7'7"E	1986, 2003	6	73	IZAN, SNHM; Cameron <i>et al.</i> , 2010
4	Svydovets branch of the Carpathian Biosphere Reserve (T. region)	48°13'23"N 24°17'37"E	2011	2	4	IZAN
5	Marmarosh branch of the Carpathian Biosphere Reserve (T. region)	47°55'30"N 24°12'30"E	1986	1	2	IZAN
6	Near Lugy, above Baltazul river near Bila Tysa river (T. region)	48° 3'50"N 24°27'45"E	1982	1	1+	ZIN
7	Velykiy Bychkiv forestry, upper part of Kosivka river (T. region)	48° 5'55"N 24° 9'25"E	1982	1	1+	ZIN
8	Mizhhirya forestry near Kuk Mountain (T. region)	48°25'23"N 23°25'15"E	1983	1	1+	ZIN
9	Bushtyno forestry near Ruske Pole village (T. region)	48° 3'10"N 23°33'50"E	1986	1	2	IZAN
10	Near Nevytske village (T. region)	48°40'35"N 22°24'55"E	1959	1	1+	Gural-Sverlova, 2016
11	Near Staryi Mizun village (I.-F. region)	48°55'20"N 23°48'10"E	1934	1	1+	Jackiewicz, 1974
12	Kuzmina forestry near Grushivka village (Chernivtsi region)	48° 9'50"N 25°59'55"E	1985	1	2	IZAN
13	Vynnyki park near Lviv city (Lviv region)	49°48'5"N 24° 6'35"E	1997	1	6	SNHM

*Here and hereafter “+” after number means “at least this number or more”.

Materials collected by us and by A. Baidashnikov after 1983 are kept in the collection of terrestrial molluscs of I.I. Schmalhausen Institute of Zoology of the National Academy of Sciences of Ukraine (Kyiv; IZAN). Earlier materials of A. Baidashnikov are mostly stored in the Zoological Institute of Russian Academy of Sciences (Saint-Petersburg; ZIN), but were not sorted and not included in the taxonomic collection. One shell from Ugolka Branch of the Carpathian Biosphere Reserve collected by A. Baidashnikov was also given to National Museum of Natural History of the National Academy of Sciences of Ukraine (Kyiv; NMNH). Materials of N. Gural-Sverlova [Gural-Sverlova, Gural, 2012] are kept in the collection of State Natural History Museum of the National Academy of Sciences of Ukraine (Lviv; SNHM). Materials of A. Polevina collected in 1959 are in the Zoological Museum of Uzhgorod University [Gural-Sverlova, 2016]. There are also 3 shells from Ugolka Branch of the Carpathian Biosphere Reserve collected by N. Gural-Sverlova in the collection of Zoological Museum of

Moscow University (ZMMU). Discussed materials of Jackiewicz [1974, 1979] from Ukraine, including type specimens of *Platyla jankowskiana* (Jackiewicz, 1979), are in the Institute of Zoology of Polish Academy of Sciences (Warsaw).

Data on species distribution outside Ukraine (Fig. 1) is based on published data only [Boeters *et al.*, 1989; Wiktor, 2004; Cameron *et al.*, 2011; Gheoca, 2016; Horsák *et al.*, 2018].

Estimation of conservation status is given in accordance with IUCN official guides [IUCN, 2012a, b]. Extent of occurrence and area of occupancy were calculated using GeoCAT online tool (geocat.kew.org). Shells' measurements were proceeded using binocular microscope with its standard ocular micrometer.

Results and discussion

Based on all available material and data we have recorded *A. parcelineata* from 13 areas in Ukraine (Table 1, Fig. 1). Within some of these areas we

Table 2. Habitats of *Acicula parcellineata* in Ukraine.Таблица 2. Местообитания *Acicula parcellineata* в Украине.

Site	Year	Altitude, m	Specimens	Habitat
Tatariv, site 1	2015	960	3	Old beech-fir forest in small ravine (no stream)
Tatariv, site 2	2015	1000	2	Old beech-fir forest in small ravine with stream
Tatariv, site 3	2015	1100	1	Young beech forest among fir forests on the bottom of ravine along stream
Tatariv, site 4	2015	900	1	Beech-fir forest in small ravine with few springs
Tatariv, site 5	2015	1000	1	Beech-fir forest in small dry ravine
Tatariv, site 6	2015	830	3	Young beech forest on the bottom of ravine along stream
Tatariv, site 7	2015	790	3	Old beech forest on the slope
Tatariv, site 8	2015	750	4	Relatively young beech-fir forest on the bottom of ravine along stream
Tatariv, site 9	2015	900	5	Old beech-fir forest on the slope
Tatariv, site 10	2015	775	6	On the edge of old sparse beech forest, above stream
Tatariv, site 11	2015	700	5	On the edge of old sparse beech-fir forest, along stream
Tatariv, site 12	2015	720	12	On the edge of relatively young beech forest, above small fen on the edge of valley
Tatariv, site 13	2015	740	1	On the edge of relatively young beech forest, small ravine
Tatariv, site 14	2015	780	2	Grove of sycamore among fir forests
Ugolka, site 1	1983	~800	1+	Beech forest
Ugolka, site 2	1983	~800	1+	Beech forest with sycamore and wych elm
Ugolka, site 3	1983	~800	1+	Large calcareous rock among beech forest
Ugolka, site 4	1983	~800	1+	Beech forest with single sycamore
Ugolka, site 5	1983	~800	1+	Beech forest
Ugolka, site 6	1983	~800	1+	Beech-yew forest (with <i>Taxus baccata</i> L.)
Ugolka, site 7	1983	~800	1+	Hornbeam-beech forest
Ugolka, site 8	2003	~800	3	Beech forest
Kuziy, site 1	1986	~600	2	Grass vegetation of <i>Andromeda</i> , <i>Petasites</i> and <i>Urtica</i> near calcareous rocks in the valley of stream among beech forest
Kuziy, site 2	2003	~600	6	Beech forest
Svydovets, site 1	2011	~1000	2	Beech-fir forest near spring
Svydovets, site 2	2011	~700	2	Beech-fir forest on the bank of large stream, with grass vegetation mainly of <i>Petasites</i>
Marmarosh	1986	~600	2	Beech forest with ash, sycamore and fir on calcareous ridge
Lugy	1982	~800	1+	Fir forest with some beech and sycamore, above river
Velykiy Bychkiv	1982	~600	1+	Beech forest
Mizhhirya	1983	~700	1+	Beech forest
Bushtyno	1986	~300	2	Beech forest with sycamore, wild cherry and wych elm
Nevytske	1959	~300	1+	Beech forest
Kuzmina	1985	~350	2	Forest with ash, maple, sycamore, hornbeam and beech
Vynnyki	1997	~350	6	Beech-hornbeam forest, calcareous rocks near spring

have up to 19 series of shells, which were collected in the different sites on the distance up to few kilometers from each other or in the same sites by different collectors. All sites that are reported together as the same area are in continuous forest massifs within same branches of the large protected areas. Four of reported areas are branches of the Carpathian Biosphere Reserve and one is in the Carpathian National Nature Park. Another 8 areas, as far as we know, are not protected.

Most areas with *A. parcellineata* are located in the main part of the Carpathian Mountains on the

altitude 600-1100 m (Fig. 1, Table 2). Three areas are in the foothills of opposite sides of the Carpathians: in Transcarpathia (areas 9 and 10, Fig. 1, Table 1, 2) and Ciscarpathia (area 11, Fig. 1, Table 1, 2), on the altitude 300-350 m. One more area is outside Carpathian region, on the Podolian Upland on the altitude around 350 m (area 13, Fig. 1, Table 1, 2). In general it corresponds well to the distribution data from other countries where most findings are within the Carpathians and some single ones are on the adjacent uplands (Fig. 1).

In most sites *A. parcellineata* was found in the

beech forests or in the forests with dominance of beech trees: beech-fir forests, beech-hornbeam forests, etc (Table 2). In all sites except one, beech trees were at least present in the forest stand. For once *A. parcellineata* was found by us in the small grove of sycamore among fir forests (near Tatariv, Table 2), however beech trees were present in the same forest massif, nearest beech grove was no more than 100 m from it. In several sites *A. parcellineata* occurs next to the large calcareous rocks, therefore this species is probably requiring soils rich in calcium. It occasionally was found on the dead wood, which perhaps makes habitats to be more suitable for the species, however it seems to be not dependent on dead wood at least in the studied mountain habitats. Species was found most often in the ravines along streams or next to springs, but in the mountains sometimes also on relatively dry slopes or flat plots. Most often only few specimens can be found on the same site even during long search by several collectors (Table 2), partly it is due to its small size, but also reflects low density of populations. In the Carpathian National Nature Park in the sites where we have found 49 specimens of *A. parcellineata* more than 1000 specimens of similar size and colouration *Carychium tridentatum* (Risso, 1826) were collected at the same time.

For most of the sites with *A. parcellineata* the age of forest is unclear, but in the mountain habitats studied by us it occurs both in ancient most preserved forests and in relatively young forests within same area. However, on the level of forest massifs it seems to occur only in areas with present ancient beech forests. Branches of the Carpathian Biosphere Reserve contain most preserved primeval beech forests of the Carpathians. At least some of other massifs with *A. parcellineata* are also known to contain ancient well-preserved beech forests. In our opinion, it is possible that populations (or subpopulations) of *A. parcellineata* that inhabit old beech forests are more stable due to its more suitable conditions, while populations (or subpopulations) in young forests or forests with low presence of beech are less stable. Later could be formed as a result of dispersion from the old beech forests and could be not capable of long survival during uncommon weather extremities. In that case subpopulations in well-preserved beech forests are cores of *A. parcellineata* populations and existence of species might depend on such subpopulations on the first place.

Major threat for the beech forests in Ukraine is various forestry activities [Balashov, 2016a]. It concerns both illegal felling, that often happen in Ukraine on a large scale, and legal felling, first of all, so-called "sanitary" cutting. Later is legally allowed in Ukraine in most of protected areas and sometimes

not only single "ill" trees are removed, but forest on large plots is completely felled down as "ill", which is often used as a corruptive mechanism to get commercial wood for selling by forestry authorities. Such activities are major problem that happening on a large scale in some protected areas of the Ukrainian Carpathians [Balashov, 2016a]. There are some relatively less-concerning beech forests, first of all, in the branches of the Carpathian Biosphere Reserve, but no doubt that in general we have major decline in area of beech forests in Ukrainian Carpathians, especially old ones (for example, it is clear from data of WWF Ukraine on gis-wwf.com.ua, but so far there is no accurate published data or open reports; we also have lots of direct observations in this regard). Therefore, there is a continuing decline in area, extent and quality of *A. parcellineata* habitat in Ukraine.

Regarding estimation of conservation status of *A. parcellineata* we should also address the general state of knowledge on terrestrial molluscs of the Ukrainian Carpathians and Podolian Upland. It is relatively well studied; review of literature and distribution data was provided by us earlier [Balashov, 2016a, b]. Extensive material was collected by Dr. A. Baidashnikov in various habitats across all parts of the Ukrainian Carpathians and Podolian Upland in 1980s, mostly in protected areas and other most preserved old-grown various forests [Baidashnikov, 1985, 1989a]. According to his notebooks and to corresponding collections that are stored in IZAN, he has collected terrestrial molluscs from 611 sites across Ukrainian Carpathians; usually 15-30 species were collected in each site, always including minute snails, and *A. parcellineata* was found only in 14 (2%) of these sites (Table 2), including 7 very close sites in Ugolka area. Several other malacologists were also intensively working in this region [see Balashov, 2016a]. Hundreds of sites were also studied across Podolian Upland by various specialists [see reviews in Balashov, 2016a, b], but only one of these sites is inhabited by *A. parcellineata* near Lviv city. Therefore, our conclusions are not based on scattered data and not referring to poorly studied group for this region. According to estimation in GeoCAT tool the extent of occurrence of *A. parcellineata* in Ukraine is 28,453 km² and the area of occupancy is 52 km². At 13 locations (in terms of IUCN) it is slightly below IUCN criterions for "Vulnerable" B1ab and B2ab, but corresponds to "Near Threatened" category [IUCN, 2012a] on the national level in Ukraine, which supports earlier estimation [Balashov, 2016a]. In our opinion category "Near Threatened" corresponds to category "рідкісні" ("rare") of the Red Book of Ukraine [see discussion in Balashov, 2016a], therefore *A. parcellineata* should be included in its next edition with this category. In Chernivtsi and Lviv regions *A.*



FIG. 2. Shells of *Acicula parcellineata* collected near Tatariv village in 2015.

РИС. 2. Раковины *Acicula parcellineata* собранные возле села Татаров в 2015.

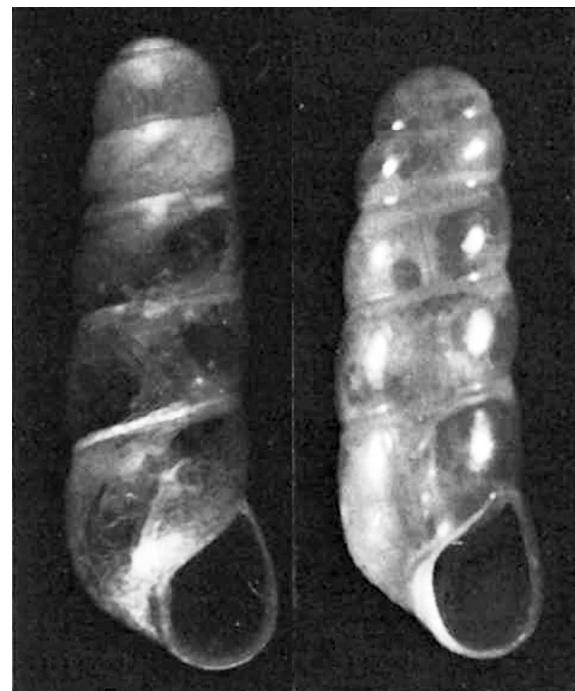


FIG. 3. Type specimens of *Platyla jankowskiana* after Boeters et al. [1989] (2.6x0.9 mm and 2.5x0.85 mm).

РИС. 3. Типовые экземпляры *Platyla jankowskiana* из Boeters et al. [1989] (2,6x0,9 мм и 2,5x0,85 мм).

parcellineata is known only in one locality in each, situated not in the mountains, but in the relatively small not protected forest massifs, therefore for these regions its conservations status should be considered “Critically Endangered” [IUCN, 2012a].

There is also a case that appears to be related to *A. parcellineata*. A snail that is considered to be another species of Aciculidae was described from the discussed above area near Tatariv: *Platyla jankowskiana* (Jackiewicz, 1979). It was described and is only known from three shells that were collected in this area by A. Jankowski in 1926 and 1933 [Jackiewicz, 1979]. It was never collected again, but was listed as “Vulnerable” under criterion D2 in the IUCN European Red List [Cuttelod et al., 2011]. The identity of this species was never disputed. Type specimens were checked during the last major revision of Aciculidae [Boeters et al., 1989]. It was included as a valid species in all recent reviews that mentioned or dealt with this region in Western Ukraine [Sysoev, Schileyko, 2009; Balashov, Gural-Sverlova, 2012; Welter-Schultes, 2012; Balashov, 2016b]. During expedition in this area in 2015 we were trying to find this species, however has only found specimens of resembling *A. parcellineata* (Fig. 2, 3) [Balashov et al., 2016]. Perhaps *P. jankowskiana* is extinct, or material was with mixed labels and originated from another area, or our efforts were not enough to reveal it, but

another possibility is that *P. jankowskiana* represents abnormal specimens of *A. parcellineata* [Balashov et al., 2016]. Therefore, we decide to look more closely on this possibility here by comparing some measurements of available material (Table 3).

In the studied specimens of *A. parcellineata* at 5-5.5 whorls the shell height is 1.75-2.4 mm and the shell width is 0.8-0.9 mm (Table 3), which slightly extends maximum values known in literature [Likharev, Rammelmeier, 1952; Boeters et al., 1989; Wiktor, 2004; Welter-Schultes, 2012; Balashov, 2016b]. Two type specimens of *P. jankowskiana* (Fig. 3) are slightly larger: 2.5-2.6 mm in height and 0.85-0.9 mm in width. But it appears that these two shells (Fig. 3) have 5.5-6 whorls and height value is larger not due to general size of shell, but only because they have slightly more whorls. In this reason we decided to measure some additional characters, including width and height of third whorl's part that is visible in straight position of the shells (Table 3). These values should be the same in all shells that have more than 4 whorls, which allows us to use subadult shells for comparison. It turns out that all additional measurements overlap in *P. jankowskiana* and *A. parcellineata* (Table 3). Maximum values of these additional measurements in *P. jankowskiana* are lower than maximum values in *A. parcellineata*, which would be the case for the less numerous and more numerous series of the same

Table 3. Shell's measurements of *A. parcelineata* and *P. jankowskiana* (later from the photo of type specimens [Boeters *et al.*, 1989]).

Таблица 3. Промеры раковины *A. parcelineata* и *P. jankowskiana* (для последнего по фото типовых экземпляров [Boeters *et al.*, 1989]).

Species and size groups by number of whorls	<i>A. parcelineata</i> , ≥ 3 whorls	<i>A. parcelineata</i> , ≥ 4 whorls	<i>A. parcelineata</i> , ≥ 5 whorls	<i>P. jankowskiana</i> , ≥ 5 whorls
Number of shells measured	8	31	22	2
Shell height, average, mm	1.4±0.17*	1.95±0.24	2.2±0.16	2.55
Shell height, max, mm	1.6	2.25	2.4	2.6
Shell height, min, mm	1.15	1.6	1.75	2.5
Shell width, average, mm	0.75±0.06	0.75±0.05	0.8±0.06	0.87
Shell width, max, mm	0.8	0.8	0.9	0.9
Shell width, min, mm	0.6	0.65	0.7	0.85
Last whorl height, average, mm	0.9±0.1	1.05±0.09	1.1±0.13	1.13
Last whorl height, max, mm	1	1.15	1.25	1.15
Last whorl height, min, mm	0.75	0.8	1.05	1.1
3d whorl height, average, mm	-	0.38±0.05	0.34±0.04	0.4
3d whorl height, max, mm	-	0.45	0.4	0.4
3d whorl height, min, mm	-	0.25	0.3	0.4
3d whorl width, average, mm	-	0.68±0.05	0.69±0.05	0.6
3d whorl width, max, mm	-	0.75	0.75	0.6
3d whorl width, min, mm	-	0.6	0.55	0.6

*standard deviation.

species. Therefore, in its size *P. jankowskiana* and *A. parcelineata* do not overlap only in its height that is 0.2 mm (8%) larger in the first species. In our opinion it is not significant, especially considering that relatively small amount of *A. parcelineata* shells was ever collected and measured.

However, main character that is different in *P. jankowskiana* and *A. parcelineata* is not the shell size but the presence of microscopic radial grooves on the shell surface in the later species. This single character was also used to divide *Acicula* and *Platyla* genera [Boeters *et al.*, 1989], therefore it is very significant. However, it is possible that such microsculpture can be absent due to genetic mutation or maybe even due to mechanical abrasion of the shell. Later could be rather expected in unusually old specimens, which usually have larger size.

Consequently, taxonomic status of *P. jankowskiana* remains unclear so far, but it could be solved if specimens with its characters (lack of grooves, larger shell) will be found among large amount of *A. parcelineata* shells from other areas.

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Наземная улитка *Acicula parcellineata* (Architaenioglossa: Cyclophoroidea: Aciculidae) в Украине: распространение, изменчивость, биотопическая приуроченность и природоохранный статус

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РЕЗЮМЕ. Сделан обзор всех существующих данных и материалов *Acicula parcellineata* из Украины. Сообщается о 13 территориях с этим видом для Украины, некоторые из которых включают несколько известных участков. О пяти из этих территорий ранее не сообщалось. Приведена карта с общим распространением *A. parcellineata* (вне Украины по литературным данным). Рассмотрена биотопическая приуроченность этого вида, в Украине он встречается почти исключительно в лесах с присутствием буков, на высоте 300–1100 м над уровнем моря. Природоохранный статус *A. parcellineata* в Украине установлен как “Near Threatened” согласно критериям IUCN, вид рекомендован на включение в Красную книгу Украины. Промеры раковины *A. parcellineata* представлены и сравниваются с таковыми у родственного *Platyla jankowskiana*. Обсуждается последний вид, представляется возможным, что он представляет собой крупные атипичные особи *A. parcellineata*.