

Two letters (from 1928 and 1929) of Albert Naufock to Mikhail Rjabov on Lepidoptera with special accent on Procridinae (Zygaenidae)

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When studying the family Zygaenidae and especially its subfamily Procridinae the authors of this publication solved many of the systematic problems that were large questions for the previous generations of entomologists (Can *et al.* 2019; Efetov 1996a, b, 1997a, b, 1998, 1999, 2001a–c, 2004, 2006, 2010; Efetov *et al.* 2004, 2006, 2011, 2014, 2015, 2018, 2019a–c, 2022, 2023, 2024a, b; Efetov & Gorbunov 2024; Efetov & Hayashi 2008; Efetov & Knyazev 2014; Efetov & Savchuk 2009; Efetov & Tarmann 1999a, b, 2013a, b, 2014, 2016a, b, 2017a, b, 2020, 2024a, b; Knyazev *et al.* 2015; Marianelli *et al.* 2020; Mirić *et al.* 2024; Vrenozzi *et al.* 2019; Yardim *et al.* 2024). In this paper we continue our previous publication (Efetov & Tarmann, 2025) devoted to the letters of the Austrian entomologist Albert Naufock (1878–1937) (Figure 1) to his Soviet colleague Mikhail A. Rjabov (1890–1962) that were focused mainly on forester moths (Procridinae). A. Naufock raised some at that time unsolved systematic questions and discussed them in detail with M. Rjabov.

This publication became possible because the first author obtained several original handwritten letters of Naufock from his archive which was presented to him by the Soviet entomologist Prof. Dr Aleksey Konstantinovich Zagulajev (1924–2007).

In this paper we analyse two letters of Naufock written in the years 1928 and 1929 and give comments according to our present knowledge on Procridinae.

Two letters of A. Naufock to M. Rjabov dated 21st April 1928 and 1st January 1929 (Figures 2, 3) translated into English with our comments are presented.



Figure 1. Austrian entomologist Albert Naufock (1878–1937) (Photo ex ZOBODAT-Personen).

Letters from Albert Naufock to Rjabov

Letter of 21st April 1928 (Figure 2)

Dear Sir!

I have not yet received your announced *tenuicornis* specimens, and therefore I assume that you have not yet sent them to me. I therefore send you to the address "Academy of Sciences, Leningrad, Zool[ogical]. Museum, lepidopt[erological]. Section" the requested exchange material and hope that you will receive it in good order. Enclosed is a list of the moths as they are lined up in the box.

In this regard, it should be noted:

Reb[elia]. plumella H. S.; This form, as it occurs here in the surroundings of Linz a/Donau, is very close to the var. *bavarica* Wehrli, described after specimens of a small and round-winged breed from the vicinity of Regensburg a/Donau (Bavaria) (Wehrli informed me of this in a letter). Here in Linz, however, larger and smaller more or less round-winged specimens occur and perhaps this is also the case in Regensburg. In 1924 I reared two egg clusters (univoltine) and received a lot of moths. A third egg cluster from Carniola, Ljubljana, did not go so well. I only got 3 ♂♂ and some females from it. These males are larger and darker than my Linz specimens and could actually be *plumella* H. S. (= *herrichella* Strand). They and the Linz specimens belong together, as they copulated, and the hatching time of the males was the same in the evening between 6 and 8 pm.

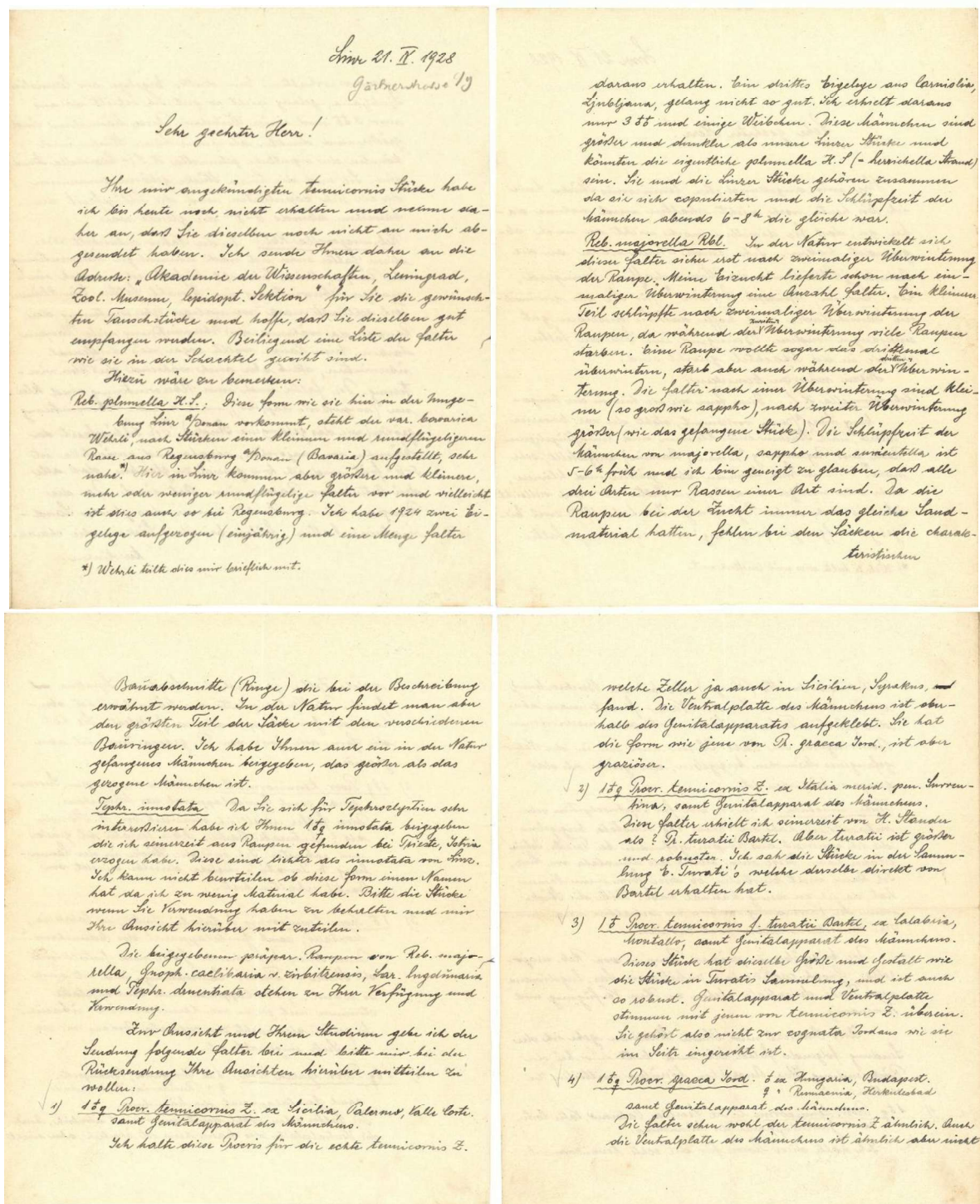


Figure 2. continued.

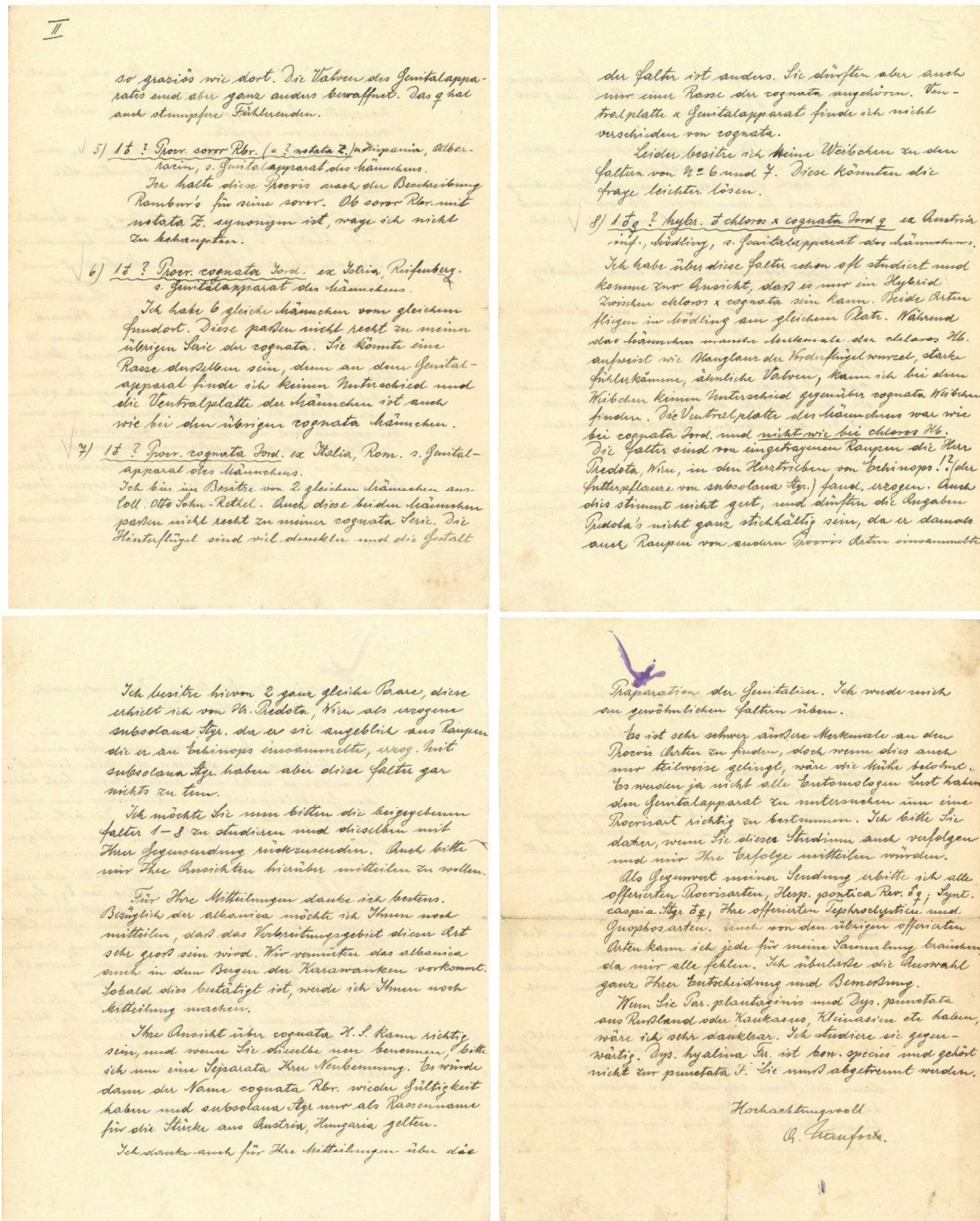


Figure 2. A letter of A. Naufock to M. Rjabov (21st April 1928).

Reb. majorella Rbl. In nature, this moth certainly only develops after the caterpillar has overwintered twice. My egg breeding yielded a number of moths after only one overwintering. A small number hatched after the caterpillars hibernated twice, as many caterpillars died during the second winter. One caterpillar even wanted to hibernate for the third time, but also died during the third hibernation. The hatching time of the males of *majorella*, *sappho* and *surientella* is 5 to 6 hours in the

morning and I am inclined to believe that all three species are only breeds of one species. Since the caterpillars always had the same land material when they were bred, the bags lack the characteristic construction sections (rings) mentioned in the description. In nature, however, you can find most of the bags with different rings. I have also a male caught in nature for you, which is larger than the bred male.

Tephr[ochlystia]. inustata Since you are very interested in *Tephroclystia* I have added 1 ♂♀ *inustata*, which I at that time raised from caterpillars near Trieste, Istria. These are lighter than *innotata* from Linz. I can't judge whether this form has a name, because I don't have enough material. Please keep the specimens if you have use for them and share your opinion about them with me.

The enclosed prepared caterpillars of *Reb. majorella*, *Gnoph[os]. caelibaria* and *zirbitzensis*, *Lar[entia]. lugdunaria* and *Tephr[ochlysta]. druentiata* are for your viewing and study, I enclose the following moths with the shipment and ask you to inform me of your opinion on this when you return it.

1) 1 ♂♀ *Procr[is]. tenuicornis* Z[eller]. ex Sicily, Palermo, Valle Corte, including genitalia preparation of the male. I consider this *Procris* to be the real *tenuicornis* Z., which Zeller also found in Sicily, Syracuse. The ventral plate of the male is glued above the genitalia. It has the same shape as that of *Pr. graeca*, but is more delicate.

2) 1 ♂♀ *Procr. tenuicornis* Z. ex Italia merid. Pen. Sorrentina, including the male's genitalia. I received these moths from H. Stauder at that time as ? *Pr. turatii* Bartel¹. But *turatii* is bigger and more robust. I saw specimens in the collection of E. Turati, who received them directly from Bartel.

3) 1 ♂ *Procr. tenuicornis* Z. f. *turatii* Bartel, ex Calabria, Montalto, together with genital preparation of the male. This specimen has the same size and shape as the specimens in Turati's collection, and is equally robust. The genitalia and ventral plate are identical to those of *tenuicornis* Z. So it does not belong to the *cognata* of Jordan² as is classified in [the book of] Seitz.

4) 1 ♂♀ *Procr. graeca* Jord. ♂ ex Hungaria, Budapest, ♀ ex Romania, Herculesbad, including genitalia preparation of the male. The moths look similar to *tenuicornis* Z. The ventral plate of the male is also similar, but not as delicate as there. The valvae of the genitalia, however, are armed quite differently. The ♀ has blunt antennae ends.

5) 1 ♂ *Procr. soror* R[am]b[ur]. (= ? *notata* Z.) ex Hispania, Albarracin, with genitalia of the male. I consider this *Procris* to be his *soror*, according to Rambur's description. Whether *soror* Rbr. is a synonym of *notata* Z., I do not dare to claim.³

6) 1 ♂ *Procr. cognata* Jord.² ex Istria, Reifenberg, with genitalia of the male. I have 6 identical males from the same location. These do not quite fit with the rest of my series of *cognata*. It could be a race of the same, as I find no difference in the genitalia, and the ventral plate of the males is also like that of the other *cognata* males.

7) 1 ♂ *Procr. cognata* Jord.² ex Italy, Rome, with genitalia of the male. I am in possession of 2 identical males from Coll. Otto Sohn-Rethel. These two males also don't really agree with my *cognata* series. The hind wings are much darker and the shape of the moth is different. However, they may also only be a race of *cognata*. The ventral plate and genitalia are not different from *cognata*. Unfortunately, I do not have any females to the moths for no. 6 and 7. These could possibly solve the question easier.

8) 1 ♂♀ ? hybr. ♂ *chloros* x *cognata* Jord ♀ ex Austria inf., Mödling, with genitalia of the male. I have often studied these moths and come to the conclusion that it can only be a hybrid between *chloros* x *cognata*. Both species fly in Mödling at the same place. While the male has some characteristics of *chloros* Hb., such as blue sheen of the forewing base, strong antenna pectination, similar valvae, I can find no difference in the female compared to *cognata* females. The ventral plate of the male is like *cognata* Jord. and not as in *chloros* Hb. The moths are from caterpillars that Mr. Predota, Vienna, found in the heart shoots of *Echinops* !? (the larval host-plant of *subsolana* Stgr.). This is also strange and Predota's information may not be entirely true, because he also collected caterpillars from other *Procris* species at that time.

I have 2 very similar pairs, that I received from Mr. Predota, Vienna, as reared *subsolana* Stgr., since he obviously reared them from caterpillars that he collected from *Echinops*⁴. But these moths have nothing to do with *subsolana* Stgr.

I would now like to ask you to study the enclosed moths 1–8 and to return them with your return parcel. I also want to share your views on this, please.

Thank you very much for your messages. With regard to the *albanica*, I would like to inform you that the distribution area of this species will be very large. We suspect that *albanica* also occurs in the mountains of the Karawanks⁵. As soon as this is confirmed, I will let you know.

Your view of *cognata* H. S. may be correct, and if you rename it, I ask for a separata of your renaming. The name *cognata* Rbr.⁶ would then be valid again and *subsolana* Stgr. would only be considered as the name of a race from Austria, Hungaria.

I would also like to thank you for your information on genitalia preparation. I will practice on common moths.

It is very difficult to find external characteristics in *Procris* species, but if this is only partially successful, the effort would be rewarded. Not all entomologists will want to examine the genitalia in order to correctly determine a specimen of *Procris*. I therefore ask you if you would also follow this study and tell me about your successes.

As a countervalue for my shipment, I request all types of *Procris* offered, *Hesp[eria]. pontica* Rev. ♂♀, *Synt[omis]. caspia* Stgr. ♂♀, your offered *Tephrochystia* and *Gnophos* species and of the other offered species I can use each for my collection, because I miss all of them. I leave the choice entirely to your decision and remark.

If you have *Par[asemia]. plantaginis* and *Dys[auxes]. punctata* from Russia or the Caucasus, Asia Minor, etc., I would be very grateful. I am currently studying them. *Dys. hyalina* Fr. is bon. species and does not belong to *punctata* F. It must be separated.

Yours faithfully
A. Naufock.

M. Ryabov, Leningrad

List [additional list to the letter of Naufock of 21st April 1928]:

- ♂♀ 1 *Procris cognata* Jord. ex Carniola, S. Catharina.
- ♂♀ 1 detto ex Austria inf., Mödling.
- ♂♀ 1 *Procris mannii* Led. ex Istria, Bont (Trieste)
- ♂♀ 1 detto ex Carniola, S. Catharina (Trieste)
- ♂♀ 2 *Procris geryon* Hb. ex Austria inf., Mödling.
- ♂♀ 1 detto var. alt. *chrysocephala* Nick ex Teriolis, Ortler.
- ♂ 1 *Procris subsolana* Stgr. ex Austria inf., Mödling.
- ♂♀ 1 *Rebelia plumella* H. S. ex Austria sup., Puchenau (surroundings of Linz)
- ♂♀ 1 *Anaitis efformata* Guen. Gene. Aestiva; ex Austria sup., Wegscheid (surroundings of Linz)
- ♂♀ 1 *Rebelia majorella* Rbl. ex Carinthia, Twimberg.
- 1 prepared caterpillar from egg breeding.
- ♂ 1 *Rebelia majorella* Rbl. ex Carinthia, Twimberg (collected 6^h in the morning)
- ♂ 1 *Psodos alticolaria* Mn. vera, ex Carinthia, alp. centr. Großglockner
- ♂ 1 *Psodos trepidaria* Hb. vera, ex Styria, Zirbitzkogel
- ♂ 1 *Agrotis fatidica* Hb., ex Carinthia, alp. centr. Großglockner.

Letter of 1st January 1929 (Figure 3)

Dear Sir!

So far I have already made 30 preparations of the male genitalia on slides of my *Procris (Ino)* species and I was able to find that our Austrian *statices* L. has a curved spine in the penis (1) whereas another Austrian *statices* L. has only a weakly curved spine in the penis sac (2)⁷. In the sketch-drawing (1) like this [Figure 3, original drawing available in the original letter]; in (2) like this [Figure 3, original drawing available in the original letter]! Is this spine the actual penis? I can't quite believe this, because with the preparation of *Procris mannii* Led. ♂ I see no such structure in the penis, but I find in the penis of *Procr. subsolana* Stgr. three pieces of such thorns⁸, as shown in the sketch-drawing [Figure 3, original drawing of the three cornuti in handwritten letter]. What is this! Presumably to penetrate a membrane during mating. For this purpose, one thorn (*statices*) must be present. But why does *subsolana* Stgr. have

3 such spines? Did you find in the specimen of *Procr. subsolana* Stgr. that I sent you also the 3 spines⁹? I would like to ask you, if you have already been able to study my *Procris* sent for viewing, to inform me of your study results. I would also like to ask you if *Procr. dolosa* Stgr. and their genitalia are known¹⁰. Does *dolosa* Stgr. really have a thin thorn-like tooth on the valva? What does the ventral plate of the ♂ look like? Maybe you can give me a sketch drawing? I am currently studying a small *Procris* from Asia Minor, which could be *dolosa* Stgr. But the valvae are completely unarmed and the ventral plate is similar to *graeca* Jord.¹¹

I ask you not to be angry with me about my many questions, but I am very interested in these *Procris* and I am already very curious about your specimens from this genus that have been promised to me.

I take the opportunity of the turn of the year to wish you a happy and prosperous New Year for 1929, and remain

very respectfully

A. Naufock

Linz a/D. Gärtnergasse 19.

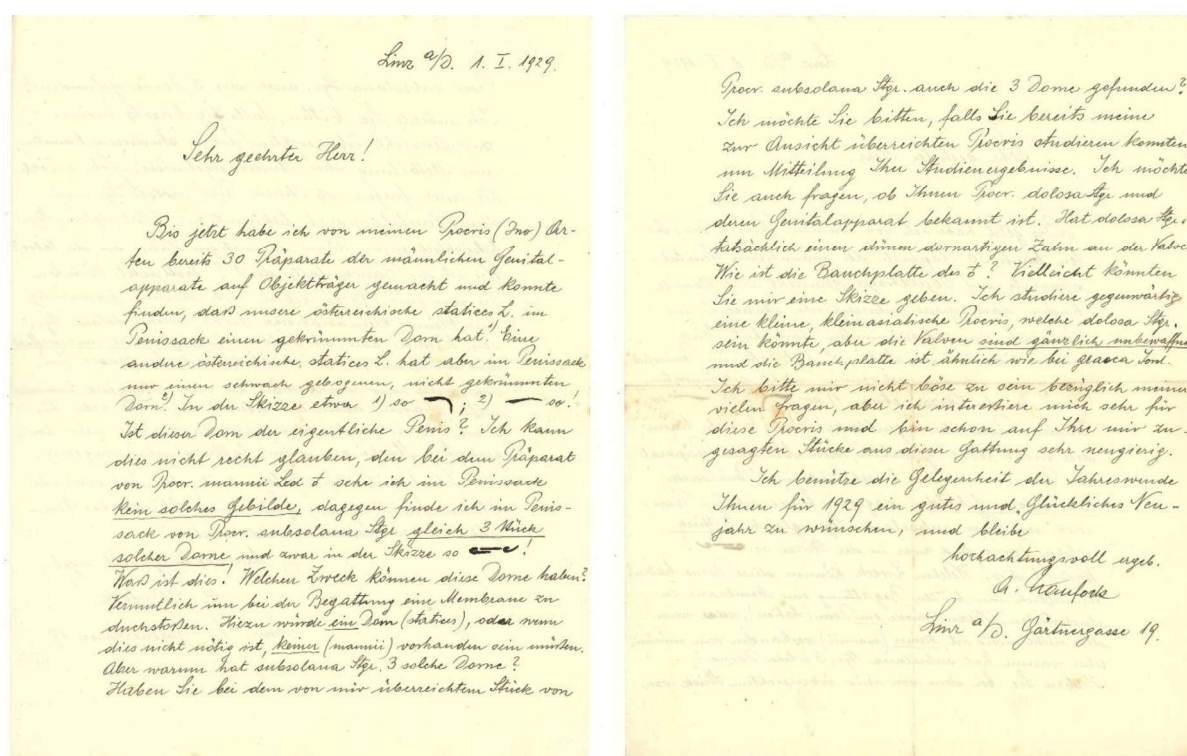


Figure 3. A letter of A. Naufock to M. Rjabov (1st January 1929).

Comments on the letters of Albert Naufock

¹The taxon *Ino turatii* Bartel, 1906, is a central Italian subspecies of *Jordanita* (*Jordanita*) *tenuicornis* (Zeller, 1847). *Jordanita* (*Jordanita*) *tenuicornis* (Zeller, 1847) is an endemic species of central and southern Italy and Sicily.

²*Procris cognata* sensu Jordan is *Jordanita* (*Jordanita*) *globulariae* (Hübner, 1793).

³*Procris soror* Rambur, 1866, is a synonym of *Jordanita* (*Tremewanina*) *notata* (Zeller, 1847).

⁴*Echinops* spp. are known as the larval host-plants of *Jordanita* (*Solaniterna*) *subsolana* (Staudinger, 1862).

⁵There is another species that is closely related to *Adscita* (*Eurasiterna*) *albanica* (Naufock, 1926), viz. *A. (E.) dujardini* Efetov & Tarmann, 2014. This species occurs in Italy and in Slovenia but has so far not been found in Austria nor in the Karawanken mountains. It is therefore clear that Naufock's

remark refers to *A. (E.) dujardini* and not to *A. (E.) albanica* which is an eastern European species that occurs from the southern Balkans to the lower Volga in Russia.

⁶*Procris cognata* Rambur 1858, is a junior primary homonym of *Procris cognata* Herrich-Schäffer, 1847. Consequently, *Procris cognata* Rambur, 1858, is a synonym of *Jordanita (Solaniterna) subsolana* (Staudinger, 1862), while *Procris gigantea* Naufock, 1933, is a synonym of *Jordanita (Gregorita) cognata* (Herrich-Schäffer, 1847).

⁷Naufock showed on his drawing the curved cornutus of *Adscita statices statices* (Linnaeus, 1758) and the straight cornutus of *Adscita statices drenowskii* (Alberti 1939). For his examined specimens Naufock mentions 'Austria' as the origin. However, *A. (A.) statices drenowskii* could only be found at the southernmost Balkan border of the former Austro-Hungarian Empire.

⁸The figure of Naufock of three cornuti belongs to *Jordanita (Solaniterna) subsolana* (Staudinger, 1862).

⁹The sclerotized structures about which Naufock writes (Figure 3, see drawings in letter) are cornuti which do not penetrate any female membrane (as Naufock thought), but are structures that fix the male phallus in the female genitalia during copulation.

¹⁰*Ino dolosa* Staudinger 1887, is a synonym of *Adscita (Procriterna) subtristis* (Staudinger, 1887). This species has a tooth-like short triangular process on the ventral margin of the valva.

¹¹The here mentioned '*Procris*' from Asia Minor is most probably *Jordanita (Praviela) anatolica* (Naufock 1929) which was described by Naufock in the same year as *Procris anatolica* Naufock, 1929.

Conclusion

Two letters of Albert Naufock to Mikhail Rjabov written in 1928 and 1929 reflect some systematic problems in Procrinae in that time. Our comments provide the present systematic opinion on this topic.

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References

- Can, F., Efetov, K.A., Burman, J., Kaya, K., Kucherenko, E.E., Ulaşlı, B. & Tarmann, G.M. (2019) A study of the Zygaenidae (Lepidoptera) fauna of Central Anatolia, Turkey. *Turkish Journal of Entomology [Türkiye Entomoloji Dergisi]*, 43 (2), 189–199.
<https://doi.org/10.16970/entoted.512580>
- Efetov, K.A. (1996a) The description of the female of *Adscita (Zygaenoprocris) rjabovi* (Alberti, 1938) (Lepidoptera: Zygaenidae, Procrinae). *Entomologist's Gazette*, 47 (1), 31–35.
- Efetov, K.A. (1996b) The description of the female of *Illiberis (Alterasvenia) yuennanensis* Alberti, 1951 (Lepidoptera: Zygaenidae, Procrinae). *Entomologist's Gazette*, 47 (2), 111–113.
- Efetov, K.A. (1997a) Two new species of the genus *Artona* Walker, 1854 (Lepidoptera: Zygaenidae, Procrinae). *Entomologist's Gazette*, 48 (3), 165–177.
- Efetov, K.A. (1997b) Three new species of the genus *Illiberis* Walker, 1854, from Taiwan and Vietnam (Lepidoptera: Zygaenidae, Procrinae). *Entomologist's Gazette*, 48 (4), 231–244.
- Efetov, K.A. (1998) A revision of the genus *Goe* Hampson, [1893] (Lepidoptera: Zygaenidae, Procrinae), with descriptions of two new species. *Entomologist's Gazette*, 49 (1), 49–62.
- Efetov, K.A. (1999) *Inouela* gen. n. from Japan and Taiwan (Lepidoptera: Zygaenidae, Chalcosiinae). *Entomologist's Gazette*, 50 (2), 91–95.
- Efetov, K.A. (2001a) On the systematic position of *Zygaenoprocris* Hampson, 1900 (Lepidoptera: Zygaenidae, Procrinae) and the erection of two new subgenera. *Entomologist's Gazette*, 52 (1), 41–48.

- Efetov, K.A. (2001b) An annotated check-list of Forester moths (Lepidoptera: Zygaenidae, Procridinae). *Entomologist's Gazette*, 52 (3), 153–162.
- Efetov, K.A. (2001c). *A Review of the Western Palaearctic Procridinae (Lepidoptera: Zygaenidae)*. CSMU Press, Simferopol, 328 pp.
- Efetov, K.A. (2004) *Forester and Burnet moths (Lepidoptera: Zygaenidae)*. The genera *Theresimima* Strand, 1917, *Rhagades* Wallengren, 1863, *Zygaenoprocris* Hampson, 1900, *Adscita* Retzius, 1783, *Jordanita* Verity, 1946 (Procridinae), and *Zygaena* Fabricius, 1775 (Zygaeninae). CSMU Press, Simferopol, 272 pp.
- Efetov, K.A. (2006) Nine new species of the genus *Chrysartona* Swinhoe, 1892 (Lepidoptera: Zygaenidae, Procridinae). *Entomologist's Gazette*, 57 (1), 23–50.
- Efetov, K.A. (2010) *Illiberis (Hedina) louisi* sp. nov. (Lepidoptera: Zygaenidae, Procridinae) from China. *Entomologist's Gazette*, 61 (4), 235–241.
- Efetov, K.A., Başbay, Onat, Başbay, Özgü & Can, F. (2024b) First record of the genus *Zygaenoprocris* Hampson, 1900 (Lepidoptera: Zygaenidae) from Türkiye (Turkey). *Ecologica Montenegrina*, 79, 168–180. <https://dx.doi.org/10.37828/em.2024.79.17>
- Efetov, K.A. & Gorbunov, O.G. (2024) New data on the distribution and biology of *Jordanita (Roccia) volgensis* (Möschler, 1862) (Lepidoptera: Zygaenidae, Procridinae) in the Crimea. *Ecologica Montenegrina*, 80, 171–179. <https://dx.doi.org/10.37828/em.2024.80.15>
- Efetov, K.A. & Hayashi, E. (2008) On the chaetotaxy of the first instar larva of *Artona martini* Efetov, 1997 (Lepidoptera: Zygaenidae, Procridinae, Artonini). *Entomologist's Gazette*, 59 (2), 101–104.
- Efetov, K.A., Hofmann, A., Tarmann, G.M. & Tremewan, W.G. (2014) Taxonomic comments on the treatment of the Zygaenidae (Lepidoptera) in volume 3 of *Moths of Europe*, Zygaenids, Pyralids 1 and Brachodids (2012). *Nota lepidopterologica*, 37 (2), 123–133. <https://doi.org/10.3897/nl.37.7940>
- Efetov, K.A., Kirsanova, A.V., Lazareva, Z.S., Parshkova, E.V., Tarmann, G.M., Rougerie, R. & Hebert, P.D.N. (2019c) DNA barcoding of Zygaenidae (Lepidoptera): results and perspectives. *Nota lepidopterologica*, 42 (2), 137–150. <https://doi.org/10.3897/nl.42.33190>
- Efetov, K.A. & Knyazev, S.A. (2014) New records of *Jordanita (Roccia) volgensis* (Möschler, 1862) (Lepidoptera: Zygaenidae, Procridinae) from Siberia (Russia) and Ukraine. *Entomologist's Gazette*, 65 (3), 175–178.
- Efetov, K.A., Knyazev, S.A. & Kucherenko, E.E. (2022) The first record of *Jordanita (Solaniterna) subsolana* (Staudinger, 1862) from Kazakhstan (Lepidoptera: Zygaenidae, Procridinae). *SHILAP Revista de lepidopterología*, 50 (198), 233–239. <https://doi.org/10.57065/shilap.127>
- Efetov, K.A., Knyazev, S.A. & Kucherenko, E.E. (2024a) New results of testing the attractant EFETOV-2 in the Far East of Russia, Siberia and South Africa. *Ecologica Montenegrina*, 71, 323–332. <https://doi.org/10.37828/em.2024.71.35>
- Efetov, K.A., Koshio, C. & Kucherenko, E.E. (2018) A new synthetic sex attractant for males of *Illiberis (Primilliberis) pruni* Dyar, 1905 (Lepidoptera: Zygaenidae, Procridinae). *SHILAP Revista de lepidopterología*, 46 (182), 263–270. <https://doi.org/10.57065/shilap.817>
- Efetov, K.A., Kucherenko, E.E., Ivanovskaya, A.V. & Baevsky, M.Y. (2023) Synthesis and field testing of esters of (2R)-butan-2-ol and (2S)-butan-2-ol and monounsaturated fatty acids as sex attractants for the males of Procridinae species (Lepidoptera: Zygaenidae). *SHILAP Revista de Lepidopterología*, 51 (202), 375–384. <https://doi.org/10.57065/shilap.474>
- Efetov, K.A., Kucherenko, E.E. & Tarmann, G.M. (2019b) New synthetic sex attractants for the males of two endemic Iberian Procridinae species (Lepidoptera: Zygaenidae). *SHILAP Revista de lepidopterología*, 47 (186), 307–315. <https://doi.org/10.57065/shilap.771>
- Efetov, K.A., Parshkova, E.V. & Koshio, C. (2004) The karyotype of *Illiberis (Primilliberis) rotundata* Jordan, [1907] (Lepidoptera: Zygaenidae, Procridinae). *Entomologist's Gazette*, 55 (3), 167–170.
- Efetov, K.A., Parshkova, E.V., Tarasova, L.G. & Tarmann, G.M. (2015) The karyotypes of Procridinae (Lepidoptera: Zygaenidae), with the first record of the karyotype of *Pollanisus commoni* Tarmann, 2004, a representative of the tribe Artonini. *Entomologist's Gazette*, 66 (2), 121–125.

- Efetov, K.A. & Savchuk, V.V. (2009) The first record of *Jordanita (Roccia) volgensis* (Möschler, 1862) (Lepidoptera: Zygaenidae, Procridinae) from the Crimea. *Entomologist's Gazette*, 60 (3), 155–158.
- Efetov, K.A. & Tarmann, G.M. (1995) An annotated check-list of the Palaearctic Procridinae (Lepidoptera: Zygaenidae), with descriptions of new taxa. *Entomologist's Gazette*, 46 (1), 63–103.
- Efetov, K.A. & Tarmann, G.M. (1999a) *Forester Moths*. The genera *Theresimima* Strand, 1917, *Rhagades* Wallengren, 1863, *Jordanita* Verity, 1946, and *Adscita* Retzius, 1783 (Lepidoptera: Zygaenidae, Procridinae). Apollo Books, Stenstrup, 192 pp.
- Efetov, K.A. & Tarmann, G.M. (1999b) On the systematic position of *Procris fusca* Leech, [1889] (Lepidoptera: Zygaenidae, Procridinae). *Entomologist's Gazette*, 50 (3), 163–168.
- Efetov, K.A. & Tarmann, G.M. (2013a) *Illiberis (Alterasvenia) cernyi* sp. nov. (Lepidoptera: Zygaenidae, Procridinae) from northern Thailand. *Entomologist's Gazette*, 64 (1), 33–39.
- Efetov, K.A. & Tarmann, G.M. (2013b) *Chrysartona (Chrystarmanna) mineti* sp. nov. (Lepidoptera: Zygaenidae, Procridinae) from northern Vietnam. *Entomologist's Gazette*, 64 (3), 197–206.
- Efetov, K.A. & Tarmann, G.M. (2014) *Illiberis (Alterasvenia) banmauka* sp. nov. (Lepidoptera: Zygaenidae, Procridinae) from China and Myanmar. *Entomologist's Gazette*, 65 (1), 62–70.
- Efetov, K.A. & Tarmann, G.M. (2016a) A new *Illiberis* species: *I. (Alterasvenia) kislovskyi* (Lepidoptera: Zygaenidae, Procridinae) from Myanmar. *Entomologist's Gazette*, 67 (2), 137–142.
- Efetov, K.A. & Tarmann, G.M. (2016b) *Pseudophacusa multidentata* Efetov & Tarmann, a new genus and species of Procridini from Myanmar, China and Laos (Lepidoptera: Zygaenidae, Procridinae). *SHILAP Revista de lepidopterología*, 44 (173), 81–89.
- Efetov, K.A. & Tarmann, G.M. (2017a) The hypothetical ground plan of the Zygaenidae, with a review of the possible autapomorphies of the Procridinae and the description of the Inouelinae subfam. nov. *Journal of the Lepidopterists' Society*, 71 (1), 20–49. <https://doi.org/10.18473/lepi.v71i1.a5>
- Efetov, K.A. & Tarmann, G.M. (2017b) *Thibetana keili* Efetov & Tarmann, a new species of the genus *Thibetana* Efetov & Tarmann, 1995, from Tibet (Lepidoptera: Zygaenidae, Procridinae, Artonini). *SHILAP Revista de lepidopterología*, 45 (180), 581–587.
- Efetov, K.A. & Tarmann, G.M. (2020) On the biology, ecology and early stages of *Rhagades (Wiegelia) predotae* (Naufock, 1930) (Lepidoptera: Zygaenidae, Procridinae). *SHILAP Revista de lepidopterología*, 48 (191), 513–524. <https://doi.org/10.57065/shilap.368>
- Efetov, K.A. & Tarmann, G.M. (2024a) *Pseudoinouela meyi* Efetov & Tarmann, a new genus and species (Lepidoptera: Zygaenidae) from the Philippines. *Ecologica Montenegrina*, 75, 178–184. <https://dx.doi.org/10.37828/em.2024.75.16>
- Efetov, K.A. & Tarmann, G.M. (2024b) An annotated catalogue of the Procridinae of the World (Lepidoptera: Zygaenidae). *SHILAP Revista de lepidopterología*, 52 (207), 409–547. <https://doi.org/10.57065/shilap.956>
- Efetov, K.A. & Tarmann, G.M. (2025) Albert Naufock and his correspondence on Procridinae (Lepidoptera: Zygaenidae) with Mikhail Rjabov. *Ecologica Montenegrina*, 82, 177–186. <https://dx.doi.org/10.37828/em.2025.82.13>
- Efetov, K.A., Tarmann, G.M., Hayashi, E. & Parshkova, E.V. (2006) New data on the chaetotaxy of the first instar larvae of Procridini and Artonini (Lepidoptera: Zygaenidae, Procridinae). *Entomologist's Gazette*, 57 (4), 229–233.
- Efetov, K.A., Tarmann, G.M. & Parshkova, E.V. (2019a) “*Ino Budensis* var. *Mollis*” Grun-Grshimailo, 1893 (Lepidoptera: Zygaenidae) from Eastern Asia recognized as a valid species on the base of morphological and molecular analysis. *Zootaxa*, 4619 (3), 518–526. <http://dx.doi.org/10.11646/zootaxa.4619.3.5>
- Efetov, K.A., Tarmann, G.M. & Tremewan, W.G. (2011) *Zygaena nevadensis* Rambur, 1858 (Lepidoptera: Zygaenidae, Zygaeninae) newly recorded from the southern tip of the Peninsula Apenninica (Apennine Peninsula), Italy. *Entomologist's Gazette*, 62 (2), 123–129.
- Knyazev, S.A., Efetov, K.A. & Ponomaryov, K.B. (2015) Zygaenidae (Lepidoptera) from Omsk Region. *Zoological Journal (Zoologicheskii Zhurnal)*, 94 (11), 1297–1302.
- Marianelli, L., Iovinella, I., Strangi, A., Madonni, L., Efetov, K.A., Tarmann, G.M., Raiola, V., Baruzzo, F., Sabbatini, G.P. & Roversi, P.F. (2020) First record of the pest *Artona (Fuscartona) martini*

- Efetov, 1997 (Lepidoptera Zygaenidae Procrinae Artonini) in European territory. *Redia*, 103, 3–7. <http://dx.doi.org/10.19263/REDIA-103.20.01>
- Mirić, M., Efetov, K.A., Tarmann, G.M., Chiocchio, A., Heikkilä, M., Wagner, D.L. & Rota, J. (2024) First comprehensive higher level phylogeny of Zygaenidae (Lepidoptera) including estimated ages of the major lineages and a review of known zygaenid fossils. *Systematic Entomology*, 49 (4), 610–623. <https://doi.org/10.1111/syen.12634>
- Naufock, A. (1921). *Procris jordani* Nfk. *Zeitschrift des österreichischen Entomologen-Vereins*, 6, 63.
- Naufock, A. (1926). *Procris albanica* n. sp. *Verhandlungen der Zoologisch-botanischen Gesellschaft Wien*, 74/75 (1924/1925), (126)–(129).
- Naufock, A. (1929). *Procris anatolica* nov. spec. *Mitteilungen der Münchner Entomologischen Gesellschaft*, 19, 94–96.
- Vrenozi, B., Toshova, T.B., Efetov, K.A., Kucherenko, E.E., Rredhi, A. & Tarmann, G.M. (2019) The first well-documented record of the vine bud moth *Theresimima ampellophaga* (Bayle-Barelle, 1808) in Albania established by field screening of sex pheromone and sex attractant traps (Lepidoptera: Zygaenidae, Procrinae). *SHILAP Revista de lepidopterología*, 47 (187), 567–576. <https://doi.org/10.57065/shilap.551>
- Yardımcı, C., Efetov, K.A., Ölmez Bayhan, S., Can, F. & Kucherenko, E.E. (2024) Results of an application of sex attractant EFETOV-2 in Southeastern Anatolia of Türkiye (Turkey). *Ecologica Montenegrina*, 78, 260–270. <https://dx.doi.org/10.37828/em.2024.78.25>