The reaction of Soviet palaeontologists to the August 1948 Session of VASKhNIL (journal discussion in 1952/1953)

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Abstract. Unlike the phenomenon of Lysenkoism that has been extensively covered in the history of science, the palaeontological discussion on the state of Soviet palaeontology in the wake of the notorious August 1948 Session of VASKhNIL that demolished Soviet genetics has remained overlooked so far. This paper describes the situation in Soviet palaeontology before this discussion and the role of Academician Borisyak in the development of palaeontology in the Soviet Union, and names the initiators, participants, and goals of the palaeontological discussion. The role of Davitashvili in the attempt to tarnish the name and scientific legacy of Borisyak is discussed in detail. However, despite overall atmosphere of despondency that reigned in Soviet biology at the time, the palaeontologists, overall, managed to assert both the priority and the value of their works and avoid administrative and physical repressions. This paper suggests the reasons why they succeeded.

1. Introduction
In contrast to the phenomenon of severe politicisation and ideologisation of Soviet science, its causes and consequences, that has been extensively described by the Russian and international historians of science, the palaeontological discussion in the wake of the notorious August 1948 Session of VASKhNIL that destroyed Soviet genetics [1] has remained overlooked so far. This discussion took place in the early 1950s and was forced on the palaeontological community by the group of T.D. Lysenko’s proponents who reigned supreme in Soviet biology and were strongly supported by authorities. This theme has been gaining relevance since mid-2000s as some authors attempted to exonerate the actions of Lysenko and his proponents and, at the same time, to tarnish N.I. Vavilov and the geneticists who associated with him [2-5].

In the Russian literature, this phenomenon known as ‘neo-Lysenkoism’ or ‘new Lysenkoism’ was characterised by an eminent historian of science, E.I. Kolchnisky, as “an ideological and political rather than a scientific phenomenon” [6]. This paper aims to reconstruct the course of the palaeontological discussion and analyse its goals and outcomes.

2. Materials and methods
The articles published in the course of the discussion in the Academy’s official organ “Izvestiya AN SSSR. Seriya biologicheskaya (Bulletin of the USSR Academy of Sciences. Biological series)” in 1952/1953 were used as the main primary sources of factual material. In our study, we have employed the methods of the history of science and sociocultural research.
3. Shortly before the discussion
In the late 1930s – early 1940s, Soviet palaeontology lost two of its most influential scientists of worldwide repute. M.V. Pavlova passed away in 1938 and Academician A.A. Borisyak died in 1944. Both of them had done a lot for palaeontology to acquire the status of an independent biological discipline as, in Russia, it for a long time remained an auxiliary discipline for the geologists, used in prospecting and mapping.

Pavlova and Borisyak had trained a large group of palaeontologists and stratigraphers who were indispensable in geological surveys, construction, drainage and irrigation, and soil studies. The disciples of Pavlova and Borisyak included prominent theoreticians in palaeontology and geology, future Academicians V.V. Menner and Yu.A. Orlov and Doctors of Sciences D.V. Obruchev, I.A. Efremov, and R.F. Gekker. Borisyak’s role in this process was of particular importance. A broad-minded and innovative scientist, he enriched geology, palaeontology, biology, and stratigraphy with his discoveries. It was due to his longstanding efforts that the Palaeontological Institute (PIN) was founded in Leningrad under the auspices of the USSR Academy of Sciences in 1930 (in 1934, PIN was relocated to Moscow together with the Academy itself).

Borisyak became a centre of gravity for a vast group of the palaeontologists of several generations, set a direction for their future studies for years ahead, and laid the foundation for the development of new fields in this science. He also initiated the large-scale palaeontological excavations carried out across the USSR since the late 1920s. After the 1948 events, palaeontology as partly biological science that served state interests came to the attention of the zealots of the “progressive Michurinist biology.” On the 1st of December 1949, the Presidium of the USSR Academy of Sciences adopted a resolution, concerned with the shortcomings in PIN’s functioning after the demise of A.A. Borisyak, which was published in Pravda on December 2.

Numerous reproaches aimed at the institute that had purportedly failed to find its rightful place in the development of “Soviet creative Darwinism” included an accusation of tolerance for the idealist and metaphysical constructs of foreign palaeontologists, “the apologists of heresy that floods Western literature with pseudoscientific products.” The Institute was accused of weakness of its theoretical studies and of palaeontology’s lagging behind the growing needs of national economy, and demanded to contribute to the development of fundamentals of Soviet creative Darwinism.

In March 1952, VSEGEI (All-Union Scientific-Research Geological Institute) held a theoretical conference titled “Overcoming the lag behind the Michurinist biology is a top priority task for Soviet palaeontology.” The participants were the staff of the USSR Academy of Sciences, higher education institutions, and manufacturing organisations. The Resolution of the Conference repeated the earlier reproaches addressed at the palaeontologists and reproved the staff of PIN for their passive stance, i.e. for not having publicly criticised Borisyak’s theoretical fallacies in press, particularly his views on the formation of species in palaeontology. T.D. Lysenko’s new outlook on this problem revealed purportedly Morganist roots of the concept of PIN’s former director [7, p. 112-114].

4. The discussion on the state of Soviet palaeontology and prospects for its future development. L.Sh. Davitashvili as a castigator of Borisyak. His opponents and proponents.
A discussion on the state of Soviet palaeontology and prospects for its future development was initiated in the March 1992 issue of “Izvestiya AN SSSR. Seriya biologicheskaya” by the journal’s editorial board. A short editorial note repeated the former statements about the inconsistency of the works of Soviet palaeontologists with the “Michurinist stage in the development of biology” and reproached them for their reluctance to use criticism and self-criticism, the “sharpest weapon in the struggle against rigidity and stagnation”, which was urged by I.V. Stalin’s “genius” work “Marxism and problems of linguistics”. The journal’s editorial board invited a broad audience of specialists – palaeontologists, geologists, biologists, historians of science, and philosophers of science – to join in this discussion initiated so as to set palaeontology on the development path consistent with “the great goals of building communism” [8, p. 5].
The materials of this discussion were published in several issues of *Izvestiya* in 1952/1953. There were 18 participants in the discussion. Twelve articles were published in their entirety and six articles were abridged as they largely repeated the former eight. Most of the discussion participants were palaeontologists; there were also several geologists, a philosopher and a historian of science. The scenario for this discussion was set in the 1949 Academy’s Resolution. The main idea was to take the fight to Borisyak’s theoretical mistakes and directions he had set for further development of Soviet palaeontology.

Leo Shivoovich Davitashvili who took upon himself the role of Borisyak’s denouncer opened the discussion [9]. Did he do it of his own accord or was he forced to do it? Most probably, the former. The history of previous activities of this talented and ambitious scientist strongly suggests that this speculation is correct. By the time of the discussion, Davitashvili’s numerous publications that included four editions of his textbook of palaeontology (1933, 1936, 1941, 1949) reflected his growing interest in the general problems of palaeontology and theory of evolution. In his very first publications, he asserted himself a devoted ideologist of Marxist and Leninist dialectics and a raging critic of “bourgeois pseudoscience” in the person of its most prominent representatives.

The year of 1949 saw his triumph. Doctor of Geological and Mineralogical Sciences (1935), Full Member (Academician) of the Georgian Academy of Sciences (1944), the author of the monograph about V.O. Kovalevsky and the editor of the publication of Kovalevsky’s classical works, Davitashvili was awarded the Stalin Prize for his monograph *The history of development of evolutionary palaeontology from Darwin to this day* (Moscow, Leningrad: AN SSSR, 1948) in 1949. This book, which is extensive in scope, thorough, and rich in factual material, provided a detailed analysis of the works of Russian and international palaeontologists.

Compared to Davitashvili’s earlier works, the narrative style has changed in this book. While maintaining the obligatory fervour at the mention of *diamat* (dialectic materialism) and “truly infallible teachings” of Darwin, he abandoned his violent invectives against dissenting scientists although pointed out at the reactionary nature of the idealistic delusions. At the same time, Davitashvili suggested that the works of all Soviet authors ought to be aligned with the method of dialectic materialism.

The aggressive intonation of the VASKhNIL discussion, however, gave him a free hand and he resumed his earlier style of scathing denunciations. He poured damning criticisms on the head of Borisyak as, luckily for Davitashvili, the late Academician was unable to respond to these. He accused Borisyak of all troubles and tribulations that had befallen Soviet palaeontology because of the latter’s misinterpretation of Darwinism and garnering a monopoly position for his own school of thought.

He refused to see Borisyak as a “successor to Kovalevsky’s work”, which was how R.F. Gekker, Yu.A. Orlov and D.V. Obruchev described Academician Borisyak in their obituaries [10-12]. For Davitashvili, the excuse to directly accuse Borisyak was the latter’s remarks that, from the modern standpoint, Kovalevsky’s philogenetic rows were rather naive and only comprised the first stage in the development of palaeobiology, which Davitashvili interpreted as Borisyak’s attempt to write off Kovalevsky’s works to the “archive of science” [9, p.20].

Davitashvili also accused Borisyak of exaggerating theoretical supremacy of American palaeontologists and even tactlessly calling Henry Fairfield Osborn a “brilliant” palaeontologist. According to Davitashvili, it was inexcusable for Borisyak to have credited Alpheus Hyatt, Edward Drinker Cope, Henry Fairfield Osborn, and Louis Dollo with the “most important generalisations” in palaeontology. Davitashvili did not hide his resentment of these “reactionaries in science, idealists” (with the only exception of Dollo, a spontaneous materialist). It particularly irritated him that Borisyak was apolitical in his judgments. “So, the value of these generalisations, even the most important of them, that purportedly reveal the novel patterns in the development of the organic world, does not depend, in Borisyak’s opinion, on the ideological and theoretical positions of their authors. Which means that pseudoscientific, vitalistic and metaphysical ‘laws’ of the development of organic forms are purportedly part of the treasury of biology as particularly valuable accomplishments,” seethed Davitashvili [9, p.14].
Charles Depéret whose book (“idealistic, decadent, and thoroughly anti-scientific philosophy of palaeontology”) Borisyak spared no effort to get translated, also caught it bad from Davitashvili who called him a defector from Darwinism and “reactionary theoretician of palaeontology.” Davitashvili attacked Jean Albert Gaudry (“an honest theist, a blatant vitalist, idealist, anti-Darwinist, who also snubbed the teachings of Jean-Baptiste Lamarck”) whose school of thought was much appreciated by Borisyak. Davitashvili saw “unscientific, idealist, metaphysical” views of Borisyak himself as borrowed from the “reactionary Western scientists.” This was, maintained the critic, where the passivity in the struggle for the Soviet scientists’ priority in the development of evolutionary theory stemmed from [9, p. 17].

Davitashvili proceeded to reproach Borisyak’s disciples [9, p.11-18] who purportedly settled for thoughtless accumulation of half-baked material without a definite goal or plan while what was already available was enough for, “being guided by the teachings of Marx/Engels/LENIN/Stalin, addressing the fundamental problems of evolution.” Davitashvili accused Borisyak’s “school” of naked empiricism, of hushing up the works of Soviet authors pursuing the problems of “creative Darwinism in palaeontology” and failing to link theory with practice (which had been successfully achieved by T.D. Lysenko). Among Borisyak’s theoretical mistakes, Davitashvili mentioned his idea of the incompatibility of species in zoology and palaeontology, division of palaeontology into palaeozoology and palaeobotany (as is customary in the West), rendering palaeontology the status of a biological discipline while reducing it to the phylogenetic studies only. Davitashvili urged Borisyak’s pupils to repudiate their teacher’s delusions and become the proponents of the Michurinist biology because rejecting meant rejecting a “possibility for the creative transformation of plants and animals, which dooms the man to awaiting the accidental favours of nature” [9, p.21].

And yet, Davitashvili failed to demolish Borisyak. His brazen criticism of the recent leader of Soviet palaeontologists had not been supported even by Davitashvili’s proponents who found it to be lopsided and acknowledged Borisyak’s preeminent contributions to Soviet palaeontology (P.A. Mchedlishvili, M.V. Kulikov, S.R.Mikulinskii). Ya.D. Kozin, A.E. Furman, and K.M. Sultanov just pointed out some downsides of Borisyak’s work. Kulikov even accused Davitashvili of making Russian palaeontology, both pre-revolutionary and contemporary, naturally original and deserving well of its country, look shoddy [7, p. 103].

In this discussion, there were only two consistent champions of Borisyak: his co-workers Yu.A. Orlov and T.G. Sarycheva. Orlov dismissed all accusations against Borisyak as unfounded. He emphasised the most valuable contributions of Soviet palaeontologists to national economy (stratigraphy of all geological systems across the USSR and palaeontological support for geological surveying) and importance of their theoretical works for creating the scientific framework for the exploration of the USSR territory, especially its subsoil resources [13, p.68-70]. Orlov only admitted but one mistake of Borisyak’s in the latter’s subjective definition of species contained in his last, posthumously published work while, “presently, the problem of species has been brilliantly developed in the works of T.D. Lysenko” [13, p.76].

This was what all participants in the discussion agreed with. It was a clever move intended to expose the “scholastic schemes” of A.N. Severtsov and his disciple I.I. Schmalhausen as well as all proponents of “sycophancy toward the West”, and to pay a compliment to the achievements of the “progressive Michurinist biology”. According to S.R. Mikulinskii, the main critic of Borisyak’s theoretical mistakes, philosopher and historian of science who received biological education, the main cause of Academician Borisyak’s fallacy was treating phylogenetic studies as an end in itself.

At the same time, Mikulinskii wrote, V.O. Kovalevskii saw phylogeny as the source of understanding the causes and general patterns of development, which enabled Lysenko to name him “among the predecessors of the Michurinist biology” in his report at “VASKhNIL’s historical session” [14, p.121]. Borisyak was criticised for ignoring Davitashvili’s discussion paper “Revisiting the tasks of palaeontology” (Pod znamenem marksizma (Under the banner of Marxism), 1937, No. 1) and failing to respond to the editorial board’s suggestion to “seriously deploy self-criticism” (Pod znamenem marksizma”, 1937, No. 4-5) [14, p.120]. Borisyak, indeed, stayed away from the
ideologised discussions, which probably saved his institute, and mostly directed his efforts at promoting new research areas in palaeontology rather than at elucidating one’s worldview or, let alone, political convictions.

Almost every article in the discussion contained the theme of palaeontology’s lagging behind the progressive Michurinist biology with a reference to acknowledged authorities: I.V. Stalin’s “genius work” (“Marxism and problems of linguistics”); T.D. Lysenko’s “brilliant” works on morphogenesis; the instructions of A.A. Zhdanov, chief Party ideologist; and Party documents (“History of the Communist Party of the Soviet Union (Bolsheviks): Short Course”). The demonstration lesson in self-criticism the palaeontologists had been urged to conduct for so long has finally taken place. Formally, the discussion has accomplished its mission.

_Izvesiya’s_ editorial board announced that the Academy’s Branch of Biological Sciences was preparing a meeting on the problems of palaeontology where the main conclusions were to be drawn and the results of the discussion were to be summarised [15, p.101]. The All-Union Palaeontological Meeting was held in Moscow on January 27/28, 1954, with 500 participants representing the USSR Academy of Sciences, the Academies of Sciences of constituent republics, higher education institutions, the Ministry of Geology and Protection of Mineral Resources, and the Ministry of Oil and Coal Industry.

On the whole, the Meeting that was held in a business-like and positive manner had emphasised the importance of the palaeontologists’ achievements for meeting the needs of national economy although some lagging behind the scope of geological prospecting had also been mentioned. Among the downsides, the meeting named the weakness of theoretical framework for the studies; the lack of systematic studies on fossil taxonomy and morphogenesis in terms of creative Darwinism; insufficient coordination of works; and a lag in the training of specialists.

A vast number of tasks necessary for the development of their discipline were placed before the palaeontologists. Among these, the main task was escalating the development of palaeontological and stratigraphic methods in view of the broadening of the scope of prospecting and exploration works. It was practicing geologists who set the tone at the Meeting while biological and worldview problems receded into the background. The palaeontologists’ accomplishments named at the Meeting included the development of research areas and methods such as paleoecology, taphonomy, phylogenetic classification of individual groups of fossil organisms, and morphofunctional analysis, all of which had been initiated at PIN by Academician Borisyak [16, p.167-168].

5. Conclusion
Despite all the efforts of _Izvesiya’s_ editorial board, the discussion on its pages (1952/1953) was slack and distilled into mutual accusations of the opponents of (Ya.D. Kozin, S.R. Mikulinskii, A.E. Furman, K.M. Sultanov, P.A. Mchedlishvili, etc.) and advocates (Yu.A. Orlov, T.G. Sarycheva and partly M.V. Kulikov) of Borisyak and PIN. To the credit of the discussion participants, they did not embrace the aggressive tone set by Davitashvili. The palaeontologists resisted getting sucked into the swamp of destructive, pernicious criticisms that had nothing to do with the real needs of their science. In the atmosphere of the all-encompassing despondency, when the examples of the successful synthesis of theory and practice in the works of T.D. Lysenko and O.B. Lepeshinskaya annoyingly kept appearing on the pages of _Izvestiya_, the palaeontologists managed to defend Borisyak’s repute. As for the obligatory self-criticism, they made do with just imitating it for the purpose of self-defense. With palaeontology being somewhat distanced away from the epicentre of struggle in biology, this discussion was removed in time from the worst mass repressions and Stalin’s death in March 1953 saved the palaeontologists from the massacre that befell Soviet geneticists. A prominent theorist of evolution, Ivan I. Schmalhausen, was hit very hard after the August 1948 meeting of VASKhNIL.

As years go by, the figure of Borisyak appears increasingly more monumental, having no equal among Russian palaeontologists. His creation, Palaeontological Institute of the USSR/Russian Academy of Sciences, flourishes and, in 2008, it was named after its founder.
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