

Flora and fauna on commemorative coins of the National Bank of Ukraine

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ABSTRACT

Coins are one of the symbols of Ukrainian statehood. Images of their obverse and reverse help to form the national consciousness of Ukrainians, love for their native land and people, which is especially relevant in times of war. The purpose of this article is to review and classify commemorative coins of the National Bank of Ukraine from the "Flora and Fauna" series. The following classification features are defined: metal, coin denomination, minting quality category, image on the reverse. The research used data from the National Bank of Ukraine on numismatic products for 1995–2022; methods of analysis, classification, and generalization are applied. It was revealed that during 1995–2022, the National Bank of Ukraine issued 54 commemorative coins in the "Flora and Fauna" series: 31 – german silver, 23 – silver. The denomination of the coins was: 2 hryvnias – 26 coins, 5 hryvnias – 5 coins, 10 hryvnias – 23 coins. The minting quality categories of these coins were: uncirculated – 1, ordinary – 12, proof – 21, special uncirculated – 20. On the obverse of coins with representatives of flora and fauna, put into circulation until 2022, there is a small State Coat of Arms of Ukraine, inscriptions and the mint mark of the Banknote Printing and Minting Works of the National Bank of Ukraine in the frame of a wreath formed from images of certain types of flora and fauna. The reverse of the commemorative coins depicts representatives of flora and fauna, classified into the following groups: flora – 5, mammals – 8, birds – 5, insects – 2, fish – 3, crustaceans – 1. Several commemorative coins are dedicated to zoos, arboretum and steppe reserve.

KEYWORDS: National Bank of Ukraine, commemorative coins, flora, fauna, coin obverse, coin reverse

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1. Introduction. One of the symbols of Ukraine’s statehood are its coins. Like banknotes, they perform the functions of a measure of value, a means of circulation, a means of accumulation and payment, but also implement an extremely important informational function: they contain information about historical events and ceremonial holidays of the country, its notable personalities, architectural monuments, folk musical instruments, crafts, representatives of local flora and fauna, etc. Thus, coins help to form national consciousness, love for the native land and people in their owners. Patriotism is especially relevant for Ukraine during the war started against it by the neighboring state of Russia. In addition, coins shape the national image of Ukraine at the international level.

The National Bank of Ukraine (hereinafter – NBU) has the exclusive right to manufacture commemorative and investment coins, which are legal tender on the territory of Ukraine. Note that commemorative coins of Ukraine are coins made of precious or non-precious metals, which are manufactured using special technologies that ensure the increased quality of coins, and are released into circulation by the NBU in limited editions on the occasion of commemorating anniversaries, memorable events of history and modern times, environmental protection measures, other social life events (NBU, 2023b). Commemorative Ukrainian coins are issued in the following series:

- 2000 years of Christmas;
- Ancient monuments of Ukraine;
- My immortal Ukraine;
- Outstanding personalities of Ukraine;
- Higher educational establishments of Ukraine;
- Rebirth of Ukrainian statehood;
- Rebirth of Christian spirituality in Ukraine;
- Heroes of Cossack Age;
- To the heroes of the Maidan;
- Hetmans’ capital cities;
- Children’s Zodiac;
- World War II;
- Spiritual treasures of Ukraine;
- Ukraine’s Armed Forces;
- Signs of the zodiac;
- Princes of Ukraine;
- Airplanes of Ukraine;
- Hero-cities of Ukraine;
- Maritime history of Ukraine;
- On the edge of Millenniums;
- The smallest golden coin;
- Folk musical instruments;
- Folk crafts;
- Oblasts of Ukraine;
- Ritual festivals of Ukraine;
- Architectural monuments of Ukraine;
- Points of interest of ancient cultures of Ukraine;
- Famous families of Ukraine;
- Sports;
- Ancient cities of Ukraine;
- Easterner calendar;
- Cosmic Ukraine;
- Ukrainian state;
- Ukrainian Heritage;

- Fauna in Ukrainian cultural monuments;
- Flora and Fauna;
- Other coins (NBU, 2023a).

2. Literature Review. Commemorative coins of various countries, including Ukraine, and other related topics were the subject of research in the following publications: Polish coins representing military culture or the culture of military art (Cynarski & Cynarski, 2015); history, art, investment & collection of America's memorial coinage (Encyclopedia of the commemorative coins of the United States, 2012); the process of development and implementation of a library of digital images with the possibility of searching commemorative and round coins (Fasuga et al., 2009); legal status of commemorative coins in the system of Czech tenders (Hobza, 2011); commemorative coin of Michael-the-Brave, voivode of Wallachia (1600) (Iliescu, 1993); the role of commemorative coins of independent Ukraine as material symbols of national identity on the way to establishing the role of the state in the European cultural space (Ladonenko, 2017); Spanish commemorative euros between 2002 and 2021 (Santos & Fernández Fernández, 2022); numismatic products of the National Bank of Ukraine in 2021 (Totska, 2021); a commemorative coin in honor of the biophysicist Georg Békésy, winner of the Nobel Prize in Medicine (Vincze, 2022); coins of the ancient and modern Olympic Games (Weir, 2007).

The flora and fauna in numismatics were studied in the following publications: the role of forestry topics in numismatics (Asic, 2016); images of natural objects on coins of European countries (Mysko, 2021); images of plants on coins of Costa Rica (Vargas-Zamora & Gómez-Laurito, 2004); coins of Ukraine with images of mammals (Zagorodniuk, 2019).

Considering the small number of publications devoted to flora and fauna on coins, in particular of Ukraine, the purpose of this article is to review and classify NBU commemorative coins from the "Flora and Fauna" series.

3. Methodology. The research used data from the NBU on numismatic products for 1995–2022 (NBU, 2023a); methods of analysis, classification, and generalization are applied.

4. Results.

4.1. Statistical analysis of NBU commemorative coins in the "Flora and Fauna" series, their classification by metal, denomination and minting quality category. During 1995–2022, the NBU issued 54 commemorative coins in the "Flora and Fauna" series. To classify them, we will define the following four classification features: metal, denomination, minting quality category, image on the reverse.

So, in this series, 31 coins were made of german silver; 23 – made of silver, the mass of the precious metal in which was equal to 31.1 g.

The denomination of the coins was:

- 2 hryvnias – 26 coins (diameter 31 mm);
- 5 hryvnias – 5 coins (diameter 35 mm);
- 10 hryvnias – 23 coins (diameter 38.6 mm).

The minting quality categories of these coins were as follows: uncirculated – 1; ordinary – 12; proof – 21; special uncirculated – 20

The chronology and dynamics of the introduction of these coins into circulation is shown in **Table 1** and **Fig. 1**.

Table 1. Chronology of the introduction into circulation of NBU commemorative coins in the “Flora and Fauna” series (Generated by the author based on NBU data (NBU, 2023a))

Date of introduction into circulation (day, month, year)	The name of the commemorative coin	
29/07/2022	Chornobyl. Rebirth. The Brown Bear in souvenir packaging (gs)	
29/07/2022	Chornobyl. Rebirth. The Brown Bear (gs)	
29/07/2022	Chornobyl. Rebirth. Przewalski’s Horse (gs)	
29/07/2022	Chornobyl. Rebirth. Przewalski’s Horse in souvenir packaging (gs)	
02/06/2020	The Malachite Moth (s)	The Malachite Moth (gs)
10/07/2019	The White-Tailed Eagle (s)	The White-Tailed Eagle (gs)
05/06/2018	The Dnieper Barbel (s)	The Dnieper Barbel (gs)
01/06/2017	The Marbled Polecat (s)	The Marbled Polecat (gs)
20/07/2016	Lady’s Slipper Orchid (s)	Lady’s Slipper Orchid (gs)
30/09/2014	Cyclamen coum (Kuznetzovii) (s)	Cyclamen coum (Kuznetzovii) (gs)
26/04/2013	The Great Bustard (s)	The Great Bustard (gs)
27/11/2012	The Sterlet (s)	The Sterlet (gs)
29/06/2010	Stipa Ucrainica (s)	Stipa Ucrainica (gs)
15/09/2008	175 years of the State Arboretum “Trostanets” (gs)	
26/05/2008	Eurasian Black Vulture (s)	Eurasian Black Vulture (gs)
23/04/2008	100 Years to Kyiv Zoo (gs)	
14/06/2006	Ukrainian Bush Cricket (s)	Ukrainian Bush Cricket (gs)
15/06/2005	Spalax arenarius reshetnik (s)	Spalax arenarius reshetnik (gs)
22/03/2004	Azov Dolphin (s)	Azov Dolphin (gs)
25/07/2003	Seahorse (s)	Seahorse (gs)
31/03/2003	Bison Bonasus (s)	Bison Bonasus (gs)
23/07/2002	Eagle Owl (s)	Eagle Owl (gs)

26/11/2001	Polish Larch (s)	Polish Larch (gs)	
21/08/2001	100 Years of Mykolayiv Zoo (gs)		
25/04/2001	Lynx Lynx (s)	Lynx Lynx (gs)	
02/08/2000	Freshwater Crab (s)	Freshwater Crab (gs)	
15/12/1999	Garden Dormouse (s)	Garden Dormouse (gs)	
26/07/1999	Butterfly Orchid (s)	Butterfly Orchid (gs)	
28/01/1999	Steppe Eagle (gs)		
20/01/1999	Steppe Eagle (s)		
20/05/1998	Askania-Nova (s)	Askania-Nova (gs)	Askania-Nova (gs)

Note: s – silver (highlighted in yellow); gs – german silver (highlighted in blue)

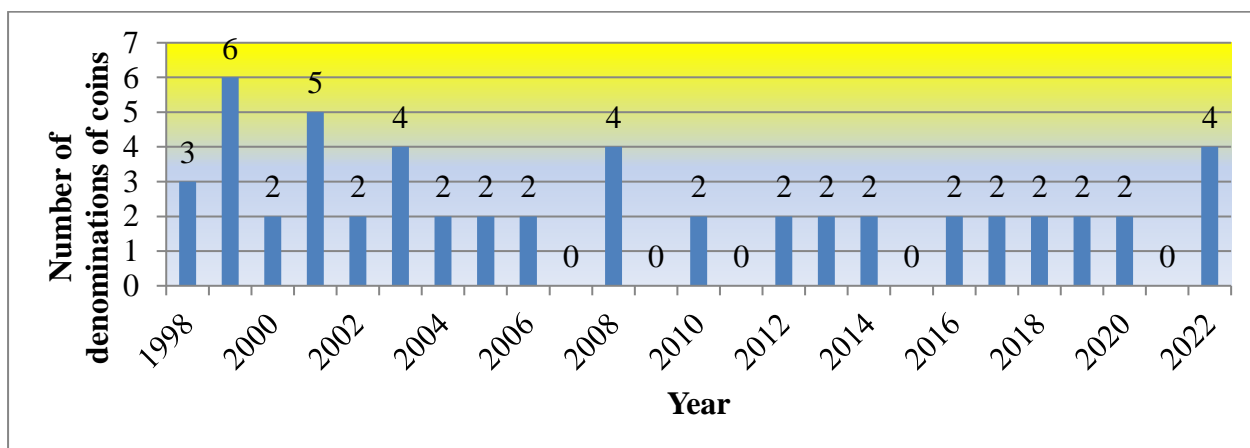


Figure 1. Dynamics of circulation of NBU commemorative coins in the "Flora and Fauna" series (Constructed by the author based on Table 1)

As you can see, the coins with the images of the brown bear and Przewalski's horse were issued from german silver in souvenir packaging and without it; coins with images of other representatives of flora and fauna – pairs of silver and german silver; coins dedicated to parks are made of german silver only; a coin with the image of the steppe reserve "Askania-Nova" – in three versions (two – from german silver with minting quality categories "ordinary" and "uncirculated"; one – from silver).

In 1995–1997, 2007, 2009, 2011, 2015, 2021, the NBU did not issue coins in the "Flora and Fauna" series. In other years, from two to six coins were issued.

4.2. Classification of representatives of flora and fauna on NBU commemorative coins. Five representatives of the flora are depicted on the reverse of NBU commemorative coins:

- lady's slipper orchid (**Fig. 2**);
- cyclamen coum (Kuznetzovii) (**Fig. 3**);
- stipa Ukrainica (**Fig. 4**);

- Polish larch (**Fig. 5**);
- butterfly orchid (**Fig. 6**).

There were significantly more images of fauna representatives on Ukrainian coins (19): mammal fauna (theriofauna) – 8, in particular the brown bear (**Fig. 7**); Przewalski's horse (**Fig. 8**); the marbled polecat (**Fig. 9**); spalax arenarius reshnetnik (**Fig. 10**); Azov dolphin (**Fig. 11**); bison bonasus (**Fig. 12**); lynx lynx (**Fig. 13**); garden dormouse (**Fig. 14**); bird fauna (ornithofauna) – 5, in particular the white-tailed eagle (**Fig. 15**); the great bustard (**Fig. 16**); Eurasian black vulture (**Fig. 17**); eagle owl (**Fig. 18**); steppe eagle (**Fig. 19**); insect fauna (entomofauna) – 2, in particular the malachite moth (**Fig. 20**); Ukrainian bush cricket (**Fig. 21**); fish fauna (ichthyofauna) – 3, in particular the Dnieper barbel (**Fig. 22**); the sterlet (**Fig. 23**); seahorse (**Fig. 24**); crustacean fauna – 1, freshwater crab (**Fig. 25**).

According to one of the domestic scientists, the motives and criteria for the selection of biological species for placement on coins are not defined in any of the available sources, the most likely criterion, judging by the coin market, is the regular copying of ideas and even compositions from neighboring countries (Zagorodniuk, 2019).

Note that on the obverse of the coins put into circulation until 2022, there is a small State Coat of Arms of Ukraine (above); inscriptions: УКРАЇНА (UKRAINE), coin denomination (2, 5, or 10), ГРИВНІ/ГРИВЕНЬ (HRYVNIAS) (in the center); minting year, mint mark of the NBU Banknote Printing and Minting Works (below). They are surrounded by a wreath made of images of individual species of flora and fauna. The elements on the coins of the 2022 issue changed their location, other inscriptions appeared instead of the wreath.

In addition to the mentioned coins, the "Flora and Fauna" series includes several coins dedicated to parks and reserve:

- 175 years of the State Arboretum "Trostanets" (**Fig. 26**);
- 100 Years to Kyiv Zoo (**Fig. 27**);
- 100 Years of Mykolayiv Zoo (**Fig. 28**);
- Askania-Nova (**Fig. 29**).



Figure 2. Lady's Slipper Orchid (gs)
(NBU (2023a))



Figure 4. Stipa Ucrainica (gs)
(NBU (2023a))



Figure 3. Cyclamen coum (Kuznetzovii) (gs)
(NBU (2023a))



Figure 5. Polish Larch (gs)
(NBU (2023a))



Figure 6. Butterfly Orchid (gs) NBU ((2023a))



Figure 8. Chornobyl. Rebirth. Przewalski's Horse (gs) (NBU (2023a))



Figure 7. Chornobyl. Rebirth. The Brown Bear (gs) (NBU (2023a))



Figure 9. The Marbled Polecat (gs) (NBU (2023a))



Figure 10. *Spalax arenarius reshetnik* (gs)
(NBU (2023a))



Figure 12. *Bison Bonasus* (gs)
(NBU (2023a))



Figure 11. *Azov Dolphin* (gs)
(NBU (2023a))



Figure 13. *Lynx Lynx* (gs)
(NBU (2023a))



Figure 14. Garden Dormouse (gs)
(NBU (2023a))



Figure 16. The Great Bustard (gs)
(NBU (2023a))



Figure 15. The White-Tailed Eagle (gs)
(NBU (2023a))



Figure 17. Eurasian Black Vulture (gs)
(NBU (2023a))



Figure 18. Eagle Owl (gs)(NBU (2023a))



Figure 20. The Malachite Moth (gs) (NBU (2023a))



Figure 19. Steppe Eagle (gs) (NBU (2023a))



Figure 21. Ukrainian Bush Cricket (gs) (NBU (2023a))



Figure 22. The Dnieper Barbel (gs)
(NBU (2023a))



Figure 24. Seahorse (gs)
(NBU (2023a))



Figure 23. The Sterlet (gs) NBU (2023a))



Figure 25. Freshwater Crab (gs)(NBU(2023a))



Figure 26. 175 years of the State Arboretum "Trostianets" (gs)(NBU (2023a))



Figure 28. 100 Years of Mykolayiv Zoo (gs) (NBU (2023a))



Figure 27. 100 Years to Kyiv Zoo (gs) (NBU (2023a))



Figure 29. Askania-Nova (gs) (NBU(2023a))

Note that in order to avoid duplication of similar images on german silver and silver coins, only german silver coins are shown in the illustrations, as some of them have colored elements (**Fig. 2–28**).

Despite the fact that there is a war in Ukraine, the NBU has planned the issue of commemorative and investment coins of Ukraine, souvenir products for 2023. In particular, in 2023 in the series "Flora and

Fauna of Ukraine” it is planned to release the coin “Chornobyl. Rebirth. Eurasian lynx” with a denomination of 5 hryvnias, diameter 35 mm, coinage quality category “special uncirculated” (NBU, 2023c).

5. Conclusion. Coins are one of the symbols of Ukrainian statehood. They form the national image of the country, inform about historical events and holidays, notable personalities, architectural monuments, folk musical instruments, crafts, representatives of local flora and fauna, etc. At the same time, coins help Ukrainians to form national consciousness, love for their native land and people, which is especially relevant in times of war.

The NBU issues commemorative Ukrainian coins in various series, one of which is “Flora and Fauna”. In this series, 54 coins were issued between 1995 and 2022. For their classification, the author chose the following features: metal, denomination, minting quality category, image on the reverse. 31 coins were made of german silver, 23 were made of silver. The denomination of the coins was: 2 hryvnias – 26 coins, 5 hryvnias – 5 coins, 10 hryvnias – 23 coins. The minting quality categories of these coins were as follows: uncirculated – 1, ordinary – 12, proof – 21, special uncirculated – 20.

On the obverse of the coins with representatives of flora and fauna, put into circulation until 2022, there is a small State Coat of Arms of Ukraine, inscriptions and the mint mark of the NBU Banknote Printing and Minting Works, framed by a wreath formed from images of certain types of flora and fauna. Five representatives of flora and 19 representatives of fauna are depicted on the reverse of NBU commemorative coins, of which 8 are mammals, 5 are birds, 2 are insects, 3 are fish, and 1 are crustaceans. In addition, several coins dedicated to parks and the steppe reserve. In 2023, in the series “Flora and Fauna of Ukraine”, the NBU plans to issue a coin “Chornobyl. Rebirth. Eurasian lynx”.

Further research on this topic may consist in comparing images of representatives of flora and fauna on Ukrainian coins with images on coins of neighboring countries.

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