

Specific botanical epithets meaning coloration

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Abstract

The article is focused on the specific botanical epithets (adjectives and participles) meaning coloration. The types of adjectives by composition and their terminological use are examined. A short etymological note accompanies every adjective and all binomial denominations are presented in which the adjective participates as a specific epithet. The research is based on the "Conspectus of the Bulgarian vascular flora", Sofia, 2012.

Keywords: Specific Botanical Epithets; Coloration; Types of Adjectives; Etymology; Word-formation

1. Introduction

The current article is based on the "Conspectus of the Bulgarian vascular flora" [3]. It is part of a larger research on linguistic structure and different types of specific epithets within binomial botanical denominations. The particular purpose of this piece is an analysis of specific botanical epithets that indicate coloration of the whole plant (*crocellus*, *niger*, *niveus*), or its single morphological parts – blossoms, leaves, seeds, stems, roots, etc. (*albiflorus*, *erythrospermus*, *viridisepalus*, etc.).

According to the International Code of Botanical Nomenclature (ICBN) [2] "The name of a species is a binary combination consisting of the name of the genus followed by a single specific epithet in the form of an adjective, a noun in the genitive, or a word in apposition (Chapter III, Section 4, Article 23.1).

The epithets included in the article are in the form of adjectives agreeing with the generic name of the respective plant. The adjectives are alphabetically arranged and represented with their basic (dictionary) forms in consent with Latin grammar exigences: *albus*, *a*, *um*, *niger*, *gra*, *grum* (for adjectives of Ist – IInd declension with three nominative forms); *viridis*, *e* (for adjectives of IIIrd declension with two nominative forms); *tricolor*, *-oris* (for adjectives of IIIrd declension with one nominative form). The meaning of adjectives as botanical terms and short etymological remarks are given according to "The Names of Plants" [3], "Etymological Dictionary of Grasses" [4], "Acta plantarum" [5], "Plants of the World Online" [6] and "A Grammatical Dictionary of Botanical Latin" [7].

Every epithet is followed by the binomial denominations where it is applied and the English common name of the particular species. A literal translation of the Latin denomination is added for plants without a common name.

The names' taxonomic status (Accepted name or synonym of another close species) is represented according to "Plants of the World Online" [6].

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2. A list of adjectives meaning coloration

2.1. albicaulis, e [albus white + caulis stem] – having white stems [3, 5].

Jurinea albicaulis (Accepted name)

2.2. albidus, a, um [albus†] – whitish [3, 4].

Allium albidum (synonym of *Allium denudatum*; literally: Whitish onion)

Pseudorchis albida (Small white orchid)

Scutellaria albida (Accepted name; literally: Whitish skullcap)

2.3. albiflorus, a, um [albus† + flos flower]– having white flowers, white-flowered [3, 5].

Delphinium albiflorum (Accepted name; literally: White-flowered larkspur)

2.4. albus, a, um – white [3, 4, 5].

- *Abies alba* (European silver fir)
- *Amaranthus albus* (Tumble pigweed, White amaranth, White pigweed)
- *Artemisia alba* (White wormwood)
- *Asphodelus albus* (White asphodel)
- *Bryonia alba* (White bryony)
- *Centaurea alba* (Accepted name; literally: White knapweed)
- *Chamaecytisus albus* (Portuguese broom, White broom)
- *Chenopodium album* (White goosefoot)
- *Dictamnus albus* (Dittany, Gas plant, Fraxinella)
- *Galium album* (White bedstraw)
- *Hyoscyamus albus* (White henbane, Yellow henbane)
- *Lamium album* (White nettle, White dead-nettle)
- *Lupinus albus* (White lupin, Field lupine)
- *Melilotus albus* (White melilot, Honey clover, White sweetclover)
- *Morus alba* (White mulberry, Common mulberry)
- *Nymphaea alba* (European white water lily, White water rose, White nenuphar)
- *Onobrychis alba* (Accepted name; literally: White sainfoin)
- *Orobanche alba* (Thyme broomrape, Red broomrape)
- *Osyris alba* (Osyris)
- *Petasites albus* (White butterbur)
- *Populus alba* (Silver poplar, Silver-leaf poplar, White poplar)
- *Potentilla alba* (White cinquefoil)
- *Salix alba* (White willow)
- *Sedum album* (White stonecrop)
- *Sesleria alba* (Accepted name)
- *Silene alba* (synonym of *Silene latifolia* subsp. *alba* – White campion)
- *Symphoricarpos albus* (Common snowberry)
- *Viola alba* (White violet)
- *Viscum album* (European mistletoe, Common mistletoe)

2.5. Amethysteus, a, um [Gr. amethystos, composed of the privative prefix a- without and methýo to drink: due to the belief that amethyst had the virtue of preserving from drunkenness] – amethyst-color, violet [4, 5].

Orobanche amethystea (Amethyst broomrape)

2.6. amethystinus, a, um [amethystos†] – violet [3, 4, 5].

- *Allium amethystinum* (Red Mohican)
- *Festuca amethystina* (Tufted fescue)

2.7. argenteus, a, um [argentum silver] – silvery [3, 4, 5].

- *Plantago argentea* (Silver plantain)
- *Potentilla argentea* (Silver cinquefoil)
- *Salvia argentea* (Silver sage, Silver salvia, Silver clary)
- *Scabiosa argentea* (Silver scabious)
- *Sesleria argentea* (Silver moor-grass)

2.8. argyrophyllus, a, um [Gr. árgyros silver + phýllon leaf] – silver-leaved [3, 5].

- *Anthemis argyrophylla* (Accepted name; literally: Silver-leaved chamomile)
- *Pastinaca argyrophylla* (Accepted name).

2.9. ater, atra, atrum – dark [4, 5], matt-black [3].

- *Nonea atra* (synonym of *Nonea pulla subsp. pulla* – Brown monkwort)

2.10. atratus, a, um [ater↑] – very dark, blackened, blackish [3, 5].

- *Carex atrata* (Black alpine sedge)
- *Juncus atratus* (Accepted name; literally: Dark rush)
- *Plantago atrata* (Mountain plantain)
- *Sedum atratum* (Dark stonecrop)

2.11. atropurpureus, a, um [ater↑ + purpureus purple] – dark purple-colored, purple, or dull-red [3, 4, 5].

- *Allium atropurpureum* (Very-dark purple allium)
- *Lysimachia atropurpurea* (Burgundy gooseneck loosestrife)
- *Scabiosa atropurpurea* (Sweet scabious)

2.12. atrorubens, -entis [ater↑ + rubens reddish] – dark-red colored [3, 5].

- *Epipactis atrorubens* (Dark-red helleborine, Royal helleborine)

2.13. atroviolaceus, a, um [ater↑ + violaceus violet-colored] – very dark violet [3, 4, 5].

- *Allium atroviolaceum* (Black-violet leek)

2.14. aurantiacus, a, um [aurantium orange]– orange-colored [3], reddish-yellow colored [4, 5].

- *Hieracium aurantiacum* (Orange hawkweed, Devil's-paintbrush)

2.15. aureus, a, um [aurum gold] – golden-yellow [3, 4, 5].

- *Anthyllis aurea* (Accepted name)
- *Aquilegia aurea* (Accepted name; literally: Golden columbine)
- *Chaerophyllum aureum* (Golden chervil)
- *Lactuca aurea* (synonym of *Cicerbita sonchifolia*; literally: Golden lettuce)
- *Lathyrus aureus* (Perennial golden pea)
- *Malabaila aurea* (synonym of *Leiotulus aureus*)
- *Ribes aureum* (Buffalo currant, Golden currant, Pruterberry)
- *Trifolium aureum* (Large hop trefoil, Golden clover, Hop clover)

2.16. aureolinus, a, um [aurum↑] – aureate-yellow [7].

- *Tulipa aureolina* (synonym of *Tulipa hungarica*; literally: Aureate tulip)

2.17. auricomus, a, um [aurum↑ + Gr. coma hair] – with golden hairs, golden-hairy-leaved [3 [4].

- *Ranunculus auricomus* (Goldilocks buttercup, Greenland buttercup)

2.18. azureus, a, um [medieval Latin lazur/lazulum, derived from Persian through Arabic word to signify "lapis lazuli" - a blue-colored stone] - sky blue [3, 4, 5].

- *Anchusa azurea* (Garden anchusa, Italian bugloss)

2.19. badius, a, um - reddish-brown [3], chestnut-colored, originally referred to as the color of a type of horse [5].

- *Trifolium badium* (Brown clover)

2.20. caeruleus, a, um [caelum sky] - cerulean, dark sky-blue, bluish [3, 4, 5, 7].

- *Lonicera caerulea* (Blue honeysuckle, Blue-berried honeysuckle, Sweetberry honeysuckle)
- *Sesleria caerulea* (Blue moor-grass)

2.21. caesius, a, um - bluish-grey, lavender-colored [3, 4, 5].

- *Rosa caesia* (Northern dog-rose)
- *Rubus caesius* (European dewberry)

2.22. candicans, -antis [present participle of candico to be white] - shiny white, glossy-white [3, 4, 5].

- *Carduus candicans* (Accepted name; literally: White plumeless thistle)

2.23. canescens, -entis [present participle of canesco to turn hoary-white] - whitish, hoary [3, 4, 5].

- *Asyneuma canescens* (Accepted name)
- *Calamagrostis canescens* (Purple small-reed)
- *Populus canescens* (Grey poplar)
- *Rubus canescens* (Woolly blackberry)

2.24. canus, a, um - ash-colored, grey, hoary [4, 5].

- *Cirsium canum* (Queen Anne's thistle)
- *Rhodax canus* (synonym of *Helianthemum canum*)
- *Scorzonera cana* (Gray salsify)

2.25. chloranthus, a, um [Gr. chlorós yellowish green + Gr. ánthos flower]- green-flowered. [3, 4, 5]

- *Platanthera chlorantha* (Greater butterfly-orchid)
- *Pyrola chlorantha* (Green-flowered wintergreen)
- *Silene chlorantha* (Yellowgreen catchfly)

2.26. chrysanthus, a, um [Gr. chrysós gold + Gr. ánthos flower] - golden-flowered [3, 4, 5].

- *Crocus chrysanthus* (Snow crocus, Golden crocus)
- *Gagea chrysantha* (Accepted name; literally: Golden-flowered gagea)
- *Potentilla chrysantha* (Thuringian cinquefoil)

2.27. chrysocomus, a, um [Gr. chrysós + Gr. cóme hair] - golden-haired, golden-tufted (a reference to the coloration of the flowers) [3, 4, 5].

- *Achillea chrysocoma* (Accepted name; literally: Golden-haired yarrow)

2.28. chrysolepis, e [Gr. chrysós + Gr. lepís scale] - golden-scaled (a reference to the lower golden-yellow leaf surface) [3, 4].

- *Centaurea chrysolepis* (Accepted name; literally: Golden-scaled knapweed)

2.29. chrysostictus, a, um [Gr. chrysós + Gr. stictós spot] - golden-spotted.

- *Soldanella chrysosticta* (Accepted name; literally: Golden-spotted snowbell)

2.30. cinereus, a, um [cinis ash] – ash-grey, greyish [3, 4, 5].

- *Alchemilla cinerea* (Accepted name; literally: Grey lady's mantle)
- *Potentilla cinerea* (Accepted name; literally: Grey cinquefoil)
- *Salix cinerea* (Grey willow)

2.31. coccineus, a, um [coccum berry, yielding scarlet dye] – crimson, scarlet [3, 5].

- *Geum coccineum* (Dwarf orange avens, Red avens)
- *Pyracantha coccinea* (Buisson ardent, Scarlet firethorn)

2.32. coeruleans, -antis [coeruleus↓] – turning blue, conspicuously blue [3].

Note: Another variant of this adjective is **caeruleans**.

- *Sesleria coeruleans* (Accepted name; literally: Bluish moor-grass)

2.33. coeruleatus, a, um [coeruleus↓] – blue, sky-blue, azure.

Note: Another variant of this adjective is **caeruleatus**.

- *Geranium coeruleatum* (Lilac Plenum Crane's-bill)

2.34. coeruleus, a, um [coelum sky] – blue, sky-blue [3, 5].

- *Molinia coerulea* (Purple moor-grass)
- *Satureja coerulea* (Blue savory)
- *Trigonella coerulea* (Blue fenugreek)

2.35. cretaceus, a, um [creta clay] – inhabiting chalky soils [3], chalk-white (a reference to the plant coloration or habitat) [4, 5].

- *Asperula cretacea* (synonym of *Hexaphylla cretacea*; literally: Chalky woodruff)

2.36. crocellus, a, um [diminutive form of crocus saffron] – saffron-colored, orange-colored [5].

- *Taraxacum crocellum* (Accepted name; literally: Saffron-colored dandelion)

2.37. cruentus, a, um [cruor blood] – bloody, gory red [3, 5].

- *Dianthus cruentus* (Blood carnation)

2.38. cyaneus, a, um [Gr. cýanos blue] – Prussian blue, dark blue [3], turquoise-colored [5].

- *Myosotis cyanea* (synonym of *Myosotis sylvatica* subsp. *cyanea*; literally: Blue forget-me-not)

2.39. deustus, a, um [past participle of deuro to burn] – burned, scorched, with brownish hues [3, 5].

- *Centaurea deusta* (Accepted name; literally: Burned knapweed)

2.40. discolor, -oris [dis- apart, opposite, division + color color, pigment] – two-colored or having different colors, variegated [3, 5].

- *Rubus discolor* (Himalayan blackberry, Armenian blackberry)
- *Saussurea discolor* (Heart-leaved sawwort)

2.41. erythraeus, a, um [Gr. erythrós red] – reddish [3].

- *Centaureum erythraea* (Common centaury, European centaury)

Note: There is a probable mistake in the agreement – the specific epithet should be *erythraeum* because the generic name *centaurium* is a noun of the neuter gender.

- *Sempervivum erythraeum* (Accepted name; literally: Red houseleek)

2.42. erythrocarpus, a, um [*Gr.erythros*↑ + *Gr. carpós fruit*] – having red fruits, red-fruited [3, 4, 5].

- *Hieracium erythrocarpum* (synonym of *Hieracium transiens subsp. erythrocarpum*; literally: Red-fruited hawkweed)

2.43. erythropodus, a, um [*Gr.erythros*↑ + *Gr. pus, podos foot, stalk*] – having red stem [5].

- *Alchemilla erythropoda* (Dwarf lady's mantle)

2.44. erythrospermus, a, um [[*Gr.erythros*↑ + *Gr. spérma seed*] – having red seeds [4, 5].

- *Taraxacum erythrospermum* (Red-seeded dandelion)

2.45. ferrugineus, a, um [*ferrugo rust*] – rust-colored, reddish-brown [3, 4, 5].

- *Carex ferruginea* (Rusty sedge, Rust-colored sedge)
- *Digitalis ferruginea* (Rusty foxglove)
- *Schoenus ferrugineus* (Brown bog-rush)

2.46. flammeus, a, um [*flamma flame*] – flame-colored, fiery-red, flame-like [3, 5].

- *Adonis flammea* (Flame Adonis)

2.47. flavescens, -entis [*present participle of flavesco to turn yellow*] – becoming yellow, pale yellow [3, 4, 5].

- *Galium flavescens* (Accepted name; literally: Yellow bedstraw)
- *Pycnus flavescens* (synonym of *Cyperus flavescens* – Yellow flatsedge)
- *Silene flavescens* (Accepted name; literally: Yellow catchfly)
- *Trisetum flavescens* (Yellow oat grass)

2.48. flavus, a, um – yellow [3, 4, 5].

- *Allium flavum* (Yellow-flowered garlic, Small yellow onion)
- *Bupleurum flavum* (Accepted name; literally: Yellow thorow-wax)
- *Carex flava* (Yellow sedge)
- *Cephalaria flava* (Accepted name;)
- *Crocus flavus* (Yellow crocus, Dutch yellow crocus)
- *Glaucium flavum* (Yellow horned poppy, Sea-poppy)
- *Linum flavum* (Golden flax, Yellow flax)
- *Thalictrum flavum* (Common meadow-rue, Yellow meadow-rue)

2.49. fuliginosus, a, um [*fuligo soot*] – sooty, dirty-brown to blackish [3, 5].

- *Carex fuliginosa* (Shortleaved sedge)

2.50. fuscatus, a, um [*fusco blacken, darken*] – darkened, dusky-brown [3, 5].

- *Vincetoxicum fuscatum* (Accepted name; literally: Darkened swallow-wort)

2.51. fuscus, a, um – dark, swarthy, bright-brown [3, 4, 5].

- *Allium fuscum* (Accepted name; literally: Dark onion)
- *Cyperus fuscus* (Brown galingale, Brown flatsedge)

2.52. glaucescens, -entis [*glaucus*↓] – becoming glaucous, bluish-green, sea-green [3, 4, 5].

- *Alchemilla glaucescens* (Silky lady's mantle)

2.53. glaucolivaceus, a, um [*glaucus*↓ + *oliva olive*]– glaucous-olive green.

- *Taraxacum glaucolivaceum* (Accepted name; literally: Glaucous-olive green dandelion)

2.54. glaucovirens, -entis [*glaucus*↓ + *virens greenish*]- grayish-green [3], bluish-green [4, 5].

- *Brachypodium glaucovirens* (Accepted name; literally: Blue-green brome)

2.55. glaucus, a, um [*Gr. glaucós glaucous, greenish blue or grey-blue*] – glaucous, bluish-green, blue-grey [3, 4, 5].

- *Astragalus glaucus* (synonym of *Astragalus albicaulis*)
- *Cardamine glauca* (Accepted name; literally: Glaucous bittercress)
- *Chenopodium glaucum* (synonym of *Oxybasis glauca* – Oak-leaved goosefoot)
- *Galium glaucum* (Waxy bedstraw)
- *Ligularia glauca* (Accepted name; literally: Glaucous leopard plant)
- *Rosa glauca* (Red-leaved rose, Redleaf rose)
- *Trinia glauca* (Honewort)
- *Veronica glauca* (Accepted name; literally: Glaucous speedwell)

2.56. guttatus, a, um [*gutta drop*] – spotted, covered with small glandular dots [3, 5].

- *Allium guttatum* (Spotted onion)
- *Daucus guttatus* (Accepted name; literally: Spotted carrot)
- *Mimulus guttatus* (synonym of *Erythranthe guttata* – Seep monkeyflower, Common yellow monkeyflower)
- *Tuberaria guttata* (Spotted rock-rose, Annual rock-rose)

2.57. incanus, a, um [*canus hoary*] – hoary-white, quite grey [3, 4, 5].

- *Alnus incana* (Grey alder, Speckled alder)
- *Berteroa incana* (Hoary alyssum, Hoary false madwort, Hoary berteroa)
- *Cistus incanus* (Soft-hairy rockrose)
- *Herniaria incana* (Accepted name; literally: Hoary rupturewort)
- *Vicia incana* (Accepted name; literally: Hoary vetch)

2.58. incarnatus, a, um [*past participle of incarno take on a flesh color*] – brownish, flesh-colored [3, 5].

- *Dactylorhiza incarnata* (Early marsh-orchid)
- *Trifolium incarnatum* (Crimson clover, Italian clover)

2.59. jaceus, a, um [*Gr. yákinthos hyacinth*] – metonymic meaning “violet in color” as this color dominates among the species of the genus *Hyacinthus* [5].

- *Centaurea jacea* (Brown knapweed, Brownray knapweed)

2.60. lacteus, a, um [*lac milk*] – milky-white [3, 4, 5].

- *Orchis lactea* (synonym of *Neotinea lactea* – Milky orchid)

2.61. laetus, a, um – happy, lush, vivid, bright (due to the colors, luster, etc.) [3, 5]; fruitful, having abundant grain [4].

- *Caltha laeta* (synonym of *Caltha palustris var. palustris* – Marsh-marigold)
- *Vicia laeta* (Accepted name; literally: Happy vetch)

2.62. leucanthus, a, um [*Gr. leucós white + Gr. ánthos flower*] – having white flowers, white-flowered [3, 4, 5].

- *Sempervivum leucanthum* (Hen and chicks; literally: White-flowered houseleek)
- *Trifolium leucanthum* (Accepted name; literally: White-flowered clover)

2.63. leucodon [*Gr. leucós*↑ + *Gr. odoús, odontos tooth*] – having white teeth [5].

- *Pedicularis leucodon* (Accepted name; literally: White-teeth lousewort)

2.64. leucoglossus, a, um [*Gr. leucós*↑ + *Gr. glóssa tongue*] – having white tongue.

- *Stachys leucoglossa* (Accepted name; literally: White-tongue hedgenettle; Balkan endemic)

2.65. leucographus, a, um [Gr. leucós† + Gr. graphé drawing] – speckled with white, with whitish leaves [5].

- *Tyrinnus leucographus* (White-spotted thistle)

2.66. leucophaeus, a, um [Gr. leucós† + Gr. phaiós dark, brown] – greyish-white, pale-brown [3, 4, 5].

- *Hyacinthella leucophaea* (Accepted name)

2.67. leucotrichus, a, um [Gr. leucós† + Gr. thríx, trichos hair, fur] – white-hairy [3, 4, 5].

- *Thymus leucotrichus* (Juniper thyme, Moonlight thyme)

2.68. liparocarpos [Gr. liparós fat, shiny + Gr. carpós fruit] – with shiny fruits [5].

- *Carex liparocarpos* (Glossy-fruited sedge)

2.69. lividus, a, um [liveo to be leaden, bluish] – lead-colored, leaden (dark grey or bluish) [3, 4, 5].

- *Amaranthus lividus* (synonym of *Amaranthus blitum* subsp. *oleraceus* – Livid amaranth, Purple amaranth)
- *Taraxacum lividum* (synonym of *Taraxacum paludosum*; literally: Lead-colored dandelion)

2.70. lucens, -enis [present participle of luceo to shine, to glow] – bright, shining [5]

- *Potamogeton lucens* (Shining pondweed)

2.71. lucidus, a, um [lux light] – bright, clear, shining, lustrous [5]; a concept of a new species, different from another species of the same genus growing in a similar habitat [4].

- *Euphorbia lucida* (Shining spurge)
- *Galium lucidum* (Accepted name; literally: Bright bedstraw)
- *Geranium lucidum* (Shining cranesbill, Shining geranium)
- *Scabiosa lucida* (Shining scabious)
- *Thalictrum lucidum* (Shining meadow-rue)

2.72. luridus, a, um [luror sallowness, paleness] – sallow, dingy yellow or brown, drab yellow [3, 4, 5].

- *Cerastium luridum* (synonym of *Cerastium brachypetalum* subsp. *tauricum*; literally: Drab yellow chickweed)

2.73. luteoalbus, a, um [luteus↓ + albus white] – yellow-white colored [3, 5].

- *Gnaphalium luteoalbum* (synonym of *Pseudognaphalium luteoalbum* – Jersey cudweed)

2.74. luteoviridis, e [luteus↓ + viridis green] – yellowish-green colored [3].

- *Saxifraga luteoviridis* (Accepted name; literally: Yellow-green saxifrage)

2.75. lutescens, -entis [present participle of lutesco turn yellow] – becoming yellow, yellowing [3, 4, 5].

- *Filago lutescens* (Red-tipped cudweed)
- *Gentianella lutescens* (Accepted name; literally: Yellowing dwarf gentian)

2.76. luteus, a, um [lutum clay; dyer's weed, giving yellow dye] – yellow [3, 5].

- *Asphodeline lutea* (King's spear, Yellow asphodel)
- *Gagea lutea* (Yellow star-of-Bethlehem)
- *Gentiana lutea* (Great yellow gentian)
- *Nuphar lutea* (Yellow water-lily, Brandy-bottle)
- *Odontites luteus* (Yellow odontites)
- *Orobanche lutea* (Accepted name; literally: Yellow broomrape)
- *Reseda lutea* (Yellow mignonette, Wild mignonette)
- *Solanum luteum* (synonym of *Solanum villosum* – Hairy nightshade)
- *Vicia lutea* (Yellow vetch, Smooth yellow vetch)

2.77. maculatus, a, um [macula spot] – spotted, bearing spots, blotched [3, 4, 5].

- *Arum maculatum* (Adder's root, Wild arum)
- *Conium maculatum* (Poison hemlock)
- *Dactylorhiza maculata* (Heath spotted-orchid)
- *Euphorbia maculata* (Spotted spurge, Prostrate spurge)
- *Hieracium maculatum* (Spotted hawkweed)
- *Hypericum maculatum* (Imperforate St John's-wort, Spotted St. John's-wort)
- *Hypochaeris maculata* (Spotted cat's-ear)
- *Lamium maculatum* (Spotted dead-nettle, Spotted henbit, Purple dragon)
- *Persicaria maculata* (synonym of *Persicaria lapathifolia*; literally: Spotted knotweed)
- *Scolymus maculatus* (Spotted golden thistle, Spotted oyster thistle)

2.78. melanantherus, a, um [Gr. mélas, -anos black + Gr. antherós blooming, flowery] – having black anthers.

- *Allium melanantherum* (Accepted name; literally: Black-anthered onion)

2.79. melanopsis, e (melanops) [Gr. mélas, -anos ↑+ Gr. óps appearance, resemblance] – black-eyed [3], with a dark appearance [5].

- *Vicia melanops* (Black-eyed vetch)

2.80. melanostachyus, a, um [Gr. mélas, -anos ↑+ Gr. stáchys spike] – having black spikes [3, 5].

- *Carex melanostachya* (Great plains sedge)

2.81. niger, gra, grum – black, dark [3, 4, 5].

- *Allium nigrum* (Black garlic, Broad-leaved leek)
- *Ballota nigra* (Black horehound)
- *Brassica nigra* (Black mustard)
- *Carex nigra* (Common sedge, Black sedge)
- *Cotoneaster niger* (Dark-seed cotoneaster, Black-berried cotoneaster)
- *Hyoscyamus niger* (Black henbane, Stinking nightshade)
- *Lathyrus niger* (Black pea, Blackening flat pea, Black bitter vetch)
- *Lonicera nigra* (Black-berried honeysuckle)
- *Morus nigra* (Black mulberry)
- *Nigritella nigra* (synonym of *Gymnadenia nigra* – Black vanilla orchid)
- *Pinus nigra* (Austrian pine, Black pine)
- *Populus nigra* (Black poplar, golden lombardy poplar)
- *Ribes nigrum* (Blackcurrant, Black currant)
- *Sambucus nigra* (European elder, Black elderberry, Black elder)
- *Solanum nigrum* (European black nightshade)
- *Veratrum nigrum* (Black false hellebore)
- *Verbascum nigrum* (Black mullein, Dark mullein)
- *Vincetoxicum nigrum* (Black dog-strangling vine, Black swallow-wort)

2.82. nigrescens, -entis [present participle of nigresco to turn black] – becoming black, darkening [3, 4, 5].

- *Centaurea nigrescens* (Tyrol knapweed, Short-fringed knapweed, Tyrol thistle, Short-fringe star-thistle)
- *Festuca nigrescens* (Alpine chewing's fescue)
- *Trifolium nigrescens* (Small white clover)

2.83. nigricans, -antis [present participle of nigrico becoming almost black] – blackish with maturity, almost black [3, 4, 5].

- *Aquilegia nigricans* (Bulgarian columbine)
- *Lembotropis nigricans* (synonym of *Cytisus nigricans* – Black broom)
- *Lens nigricans* (synonym of *Vicia lentoides*; literally: Black lentil)
- *Schoenus nigricans* (Black bog-rush, Black sedge)

- *Taraxacum nigricans* (Accepted name; literally: Black dandelion)

2.84. nitens, -entis [present participle of niteo to shine] – having a polished surface [3], shining [4, 5]

- *Atriplex nitens* (synonym of *Atriplex sagittata* – Hoary orach)

2.85. nitidulus, a, um [diminutive of nitidus lucid, brilliant, shiny] – slightly shiny, glossy, quite smooth-surfaced [3, 4, 5].

- *Koeleria nitidula* (Accepted name; literally: Shiny junegrass)
- *Rosa x nitidula* (Accepted hybrid; literally: Shiny rose)

2.86. nitidus, a, um [niteo to shine] – shiny, glossy, bright [3, 4, 5].

- *Anthriscus nitida* (Accepted name; literally: Shiny chervil)
- *Corispermum nitidum* (Shiny bugseed)

2.87. nivalis, e [nix, nivis snow] – white, snowy: a reference to the white color of the plant [3, 5], or to growing near the snow area [3, 4].

- *Galanthus nivalis* (Snowdrop, Common snowdrop)
- *Gentiana nivalis* (Snow gentian, Alpine gentian)
- *Pyrus nivalis* (Snow pear)

2.88. niveus, a, um [nix, nivis†] – snow-white, purest white [3, 4, 5].

- *Verbascum niveum* (Accepted name; literally: Snow mullein)

2.89. ochroleucus, a, um [Gr. ochrós yellowish + Gr. leucós white]– yellowish-white, buff-colored [3], pale yellow [4, 5].

- *Achillea ochroleuca* (Accepted name; literally: Yellow-white yarrow)
- *Anchusa ochroleuca* (Yellow alkanet)
- *Scabiosa ochroleuca* (Cream pincushion, Cream scabious)
- *Thlaspi ochroleucum* (synonym of *Noccaea ochroleuca*; literally: Yellowish penny-cress)
- *Trifolium ochroleucon* (Sulphur clover)

2.90. ochrospermus, a, um [Gr. ochrós† + Gr. spérma seed] – having yellow seeds.

- *Taraxacum ochrospermum* (Accepted name; literally: Yellow-seeded dandelion)

2.91. pallens, -entis [present participle of paleo to pale] – pale, pallid [3, 4, 5]; greenish [3].

- *Allium pallens* (Accepted name; literally: Pale onion)
- *Dianthus pallens* (synonym of *Dianthus monadelphus subsp. pallens*; literally: Pale pink)
- *Leucanthemum pallens* (Accepted name)
- *Nonea pallens* (Accepted name; literally: Pale monkswort)
- *Orchis pallens* (Pale-flowered orchid)
- *Veronica pallens* (synonym of *Veronica incana* – Silver speedwell)

2.92. pallescens, -entis [present participle of pallesco to turn pale] – becoming pale, pallid, fading [3, 4, 5].

- *Carex pallescens* (Pale sedge)
- *Lathyrus pallescens* (Accepted name; literally: Pallid pea)
- *Trifolium pallescens* (Pale clover)

2.93. pallidiflorus, a, um [pallidus↓ + flos flower] – with pale flowers [3, 4, 5].

- *Dianthus pallidiflorus* (synonym of *Dianthus pallens*; literally: Pale-flowered pink)

2.94. pallidior, -ius [comparative degree of pallidus↓] – paler [3].

- *Centaurea pallidior* (synonym of *Centaurea affinis subsp. pallidior*; literally: Pallid knapweed)

2.95. pallidus, a, um [paleo to be pale] – pale, pallid, bright [3, 4, 5].

- *Alcea pallida* (Turkish hollyhock)
- *Aristolochia pallida* (Pale birthwort)
- *Crocus pallidus* (Accepted name; literally: Pallid crocus)
- *Sedum pallidum* (Turkish stonecrop)
- *Stellaria pallida* (synonym of *Stellaria apetala* – Lesser chickweed)
- *Trifolium pallidum* (Accepted name; literally: Pallid clover)

2.96. phaeus, a, um [Gr. phaíos dark, brown] – dark, dusky, brownish-colored [5], greyish [4].

- *Geranium phaeum* (Dusky crane's-bill, Mourning widow)

2.97. picturatus, a, um [pictura picture, painting] – painted, variegated, picture-like [3, 4, 5].

- *Festuca picturata* (East alpine violet fescue)

2.98. pictus, a, um [past participle of pingo to paint] – painted, variegated, ornamental [3, 4, 5].

- *Euphrasia picta* (Accepted name; literally: Variegated eyebright)
- *Melica picta* (Accepted name; literally: Variegated melic grass)

2.99. poliochloroides, -is [Gr. poliós grey + Gr. chlorós green] – grey-greenish.

- *Taraxacum poliochloroides* (Accepted name; literally: Grey-greenish dandelion)

2.100. polius, a, um [Gr. poliós†] – grey, hoary, whitish [4, 5].

- *Teucrium polium* (Felted germander)

2.101. polychromus, a, um [Gr. polýs much, many + Gr. chróma color] – multicolored, having many colors [5].

- *Euphorbia polychroma* (synonym of *Euphorbia epithymoides* – Cushion spurge)

2.102. pullus, a, um – dark-colored, blackish [5].

- *Nonea pulla* (Brown monkwort)

2.103. punctatus, a, um [punctum spot, dot] – dotted, spotted [4, 5]

- *Carex punctata* (Dotted sedge)
- *Gentiana punctata* (Spotted gentian)
- *Lysimachia punctata* (Dotted loosestrife, Large yellow loosestrife, Spotted loosestrife)
- *Swertia punctata* (Accepted name; literally: Dotted swertia)

2.104. purpuratus, a, um [purpureus↓] – empurpled, purplish, purple-red [3, 4, 5].

- *Epipactis purpurata* (Violet helleborine)

2.105. purpureus, a, um [Gr. porphýreos of purple-red color] – purple to reddish [3, 4, 5].

- *Asperula purpurea* (synonym of *Thliphthisa purpurea*; literally: Purple woodruff)
- *Geranium purpureum* (Little-Robin)
- *Lamium purpureum* (Red dead-nettle, Purple dead-nettle, Red henbit)
- *Orchis purpurea* (Lady orchid)
- *Orobanche purpurea* (Yarrow broomrape, Purple broomrape)
- *Prenanthes purpurea* (Purple lettuce)
- *Salix purpurea* (Purple willow, Purple osier willow)
- *Scorzonera purpurea* (Purple viper's grass)
- *Trifolium purpureum* (Purple clover)
- *Verbascum purpureum* (Accepted name; literally: Purple mullein)

2.106. purpurocaeruleus, a, um [purpureus↑ + caeruleus dark sky-blue] – purple-blue (due to the color of the corolla which varies from purple to cerulean during anthesis) [5].

- *Buglossoides purpurocaerulea* (synonym of *Aegonychon purpurocaeruleum* – Purple gromwell)

2.107. roseoluteus, a, um [roseus↓ + luteus yellow] – rose-yellow.

- *Dianthus roseoluteus* (Accepted name; literally: Rose-yellow carnation)

2.108. roseus, a, um [rosa rose] – rose-colored, rosy, pink [3, 4, 5].

- *Alcea rosea* (Common hollyhock)
- *Atriplex rosea* (Tumbling saltbush, Tumbling orach)
- *Epilobium roseum* (Pale willowherb)
- *Rhodiola rosea* (Golden root, Rose root, Arctic root, Orpin rose)

2.109. rubellus, a, um [diminutive of ruber↓] – pale red, reddish ([3, 5].

- *Capsella rubella* (Pink shepherd's-purse)

2.110. rubens, -entis [present participle of rubeo to be red, to blush] – blushed, reddish, ruddy {3, 4, 5].

- *Sedum rubens* (Accepted name; literally: Reddish stonecrop)
- *Trifolium rubens* (Red feather trefoil, Red feather clover, Ruddy clover)

2.111. ruber, bra, brum – red [3, 4, 5].

- *Cephalanthera rubra* (Red helleborine)
- *Chenopodium rubrum* (synonym of *Oxybasis rubra* – Red goosefoot, Coastblite goosefoot)
- *Crepis rubra* (Red hawk's-beard, Pink hawk's-beard)
- *Festuca rubra* (Red fescue, Creeping red fescue)
- *Pulmonaria rubra* (Red lungwort)
- *Spergularia rubra* (Red sand-spurry)
- *Tilia rubra* (Red twigged lime)

2.112. sanguinalis, e [sanguis blood] – sanguine, blood-red, dull-red {4, 5].

- *Digitaria sanguinalis* (Hairy crabgrass, Hairy finger-grass, Crop grass)

2.113. sanguineus, a, um [sanguis blood] – blood-red, dull-red [4, 5].

- *Cornus sanguinea* (Common dogwood, Bloody dogwood)
- *Geranium sanguineum* (Bloody crane's-bill)
- *Rubus sanguineus* (synonym of *Rubus creticus* – Holy bramble)
- *Rumex sanguineus* (Red-veined dock, Bloody dock)

2.114. spadiceus, a, um [spadix palm branch with ripe dates therefore, by default, the light brown color of dates] – chestnut-colored, chestnut-brown [4, 5].

- *Trifolium spadiceum* (Brown moor clover)

2.115. splendens, -entis [present participle of splendo to shine] – splendid, shining (due to the bright color) [3, 4, 5].

- *Centaurea splendens* (Accepted name; literally: Shining knapweed)
- *Tulipa splendens* (synonym of *Tulipa suaveolens*; literally: Splendid tulip; Bulgarian endemic)

2.116. stramineus, a, um [stramen straw] – straw-yellow [4, 5].

- *Alchemilla straminea* (Accepted name; literally: Straw-colored lady's mantle)

2.117. sulphureus, a, um [sulphur sulfur] – sulphur-yellow, pale-yellow [3, 4, 5].

Note: Another variant of this adjective is **sulfureus**.

- *Potentilla sulphurea* (synonym of *Potentilla recta* subsp. *recta*; literally: Sulphur cinquefoil)

2.118. tephrocephalus, a, um [*Gr. tephρός ash-colored + Gr. cephalé head*] – having greyish or ash-looking flower heads [5].

- *Hieracium tephrocephalum* (synonym of *Pilosella tephrocephala*; literally: Grey-headed hawkweed)

2.119. tricolor, -oris [*tres three + color color*] – three-colored [3, 4, 5].

- *Carex tricolor* (Accepted name; literally: Three-colored sedge)
- *Viola tricolor* (Wild pansy)

2.120. tristis, e – sad, dark, dull-colored, gloomy: due to the monotonous dull color [3] or the weeping appearance [5]; harsh, disagreeable, bitter (of taste) [7].

- *Dianthus tristis* (synonym of *Dianthus pancicii*; literally: Sad carnation; Balcan endemic)

2.121. ustulatus, a, um [*past participle of ustulo to burn, to toast*] – burnt, scorched-looking in various shades of rust-red [3, 5].

- *Orchis ustulata* (synonym of *Neotinea ustulata* – Burnt-tip orchid)

2.122. variegatus, a, um [*past participle of variego to vary, to be of different colors*] – multi-colored, with two or more colors variously arranged, mottled, variegated [3, 4, 5]

- *Aconitum variegatum* (Manchurian monkshood)
- *Iris variegata* (Hungarian iris)

2.123. venetus, a, um [*Veneti an ancient people of northeastern Italy, inhabitants of today's Veneto region*] – sea-colored, bluish-green, Venice-blue [5, 7].

- *Lathyrus venetus* (Accepted name; literally: Sea-green vetchling)
- *Trachomitum venetum* (synonym of *Apocynum venetum* – Sword-leaf dogbane)

2.124. vepallidus, a, um [*ve- privative or pejorative particle + pallidus pale, colorless*] – very pale [3, 5]

- *Rubus vepallidus* (a taxonomically valueless local or singular biotype [6]; literally: Very pale bramble)

2.125. versicolor, -oris [*versus changed, modified + color color*] – with changing color, variously colored ([3,4, 5]).

- *Avenula versicolor* (synonym of *Helictochloa versicolor*)
- *Campanula versicolor* (Various-colored bellflower)

2.126. violaceus, a, um [*viola violet*] – violet, purple, purplish-colored [3, 4, 5].

- *Bellardiochloa violacea* (synonym of *Bellardiochloa variegata*)

2.127. virescens, -entis [*present participle of viresco to turn green*] – becoming green, light-green [3, 5].

- *Anthemis virescens* (Accepted name; literally: Greenish chamomile; Bulgarian endemic)
- *Piptatherum virescens* (synonym of *Achnatherum virescens*; literally: Greenish ricegrass)

2.128. viridis, e – green; youthful, fresh [3, 4, 5, 7].

- *Alnus viridis* (synonym of *Alnus alnobetula* – Green alder)
- *Asplenium viride* (Green spleenwort)
- *Coeloglossum viride* (synonym of *Dactylorhiza viridis* – Frog orchid)
- *Fragaria viridis* (Creamy strawberry, Green strawberry)
- *Polypogon viridis* (Beardless rabbit's-foot grass)
- *Salvia viridis* (Annual clary sage)

- *Setaria viridis* (Green bristle grass, Green foxtail)

2.129. viridiflorus, a, um [viridis↑ + flos flower]– with green flowers [3, 5].

- *Alchemilla viridiflora* (Accepted name; literally: Green-flowered lady's mantle)
- *Digitalis viridiflora* (Green foxglove; Balcan endemic)
- *Silene viridiflora* (Accepted name; literally: Green-flowered catchfly)

2.130. viridisepalus, a, um [viridis↑ + sepalum sepal] – having green sepals.

- *Thlaspi viridisepalum* (synonym of *Noccaea viridisepala*; literally: Green-sepal pennycress)

2.131. xanthifolius, a, um [Gr. xanthós yellow + folium leaf] – having yellowish leaves [3, 5, 7].

- *Iva xanthiifolia* (synonym of *Euphrosyne xanthiifolia* – Giant sumpweed)

2.132. xanthinus, a, um [Gr. xanthós↑] – yellow [3, 5].

- *Festuca xanthina* (Accepted name; literally: Yellow fescue)

2.133. xanthochlorus, a, um [Gr. xanthós↑ + Gr. chlorós green] – yellow-green (a reference to the blossoms' coloration) [3, 5].

- *Alchemilla xanthochlora* (Intermediate lady's mantle; literally: Yellow-green lady's mantle)

2.134. xanthophoeniceus, a, um [Gr. xanthós↑ + Gr. foinícios which means both palm and purple-red color] – yellow-purple [5].

- *Verbascum xanthophoeniceum* (Accepted name; literally: Yellow-purple mullein)

3. Types of adjectives according to the composition

3.1. Primary adjectives – 17.

The primary adjectives are most often used to signify the coloration of the whole plant. They are present in many binomial names despite the limited number of the lexemes themselves. Particularly common are the epithets *albus* white (29 times), *niger* black (18 times), *flavus* yellow (8 times), *glaucus* glaucous (8 times), *ruber* red (7 times), *viridis* green (7 times). Also, the primary adjectives are involved in the composition of many compound adjectives to denote the coloration of different parts of the plant (*albiflorus* white-blossom, *viridisepalus* with green sepals) or additional color shades (*atroviolaceus* dark violet, *glaucolivaceus* glaucous-olive green).

3.2. Derivative adjectives – 54.

Among the derivative adjectives predominate the adjectives formed through suffixes (*-eus*, *-in-*, *-at-*, *-iac-*, *-ell-*, *-id-*, *-al-*), less often these formed through prefixes (*dis-*, *in-*), including one form of comparative degree (*pallidior*). The derivative adjectives, as well as the simple ones, describe the overall plants' coloration.

There are several cases in which one root is combined with different suffixes, thus fuller usage of the word-formative capabilities of the terminological language is realized and greater semantic precision is achieved:

- *amethysteus* – *amethystinus*: amethyst, violet
- *coeruleatus* – *coeruleus*: blue, sky-blue
- *nitidus* – *nitidulus*: glossy, shiny with a diminutive shade for *nitidulus*
- *nivalis* – *niveus*: snow-white with additional connotation "growing near the snow" for *nivalis*
- *pallidus* – *pallidior* – *vepallidus*: pale, pallid with intensifying meaning of the suffix *-ior*, and the particle *ve-*, therefore paler, very pale
- *purpureus* – *purpuratus*: purple, purple-red
- *sanguinalis* – *sanguineus*: sanguine, blood-red.

3.3. Compound adjectives - 44.

Among the compound adjectives predominated these are composed of Greek word-formative elements as the ratio with the adjectives of Latin origin is 26 (*argyrophyllus, chloranthus, chrysanthus, chrysocomus, chrysolepis, chrysostictus, eythrocarpus, eythropodus, eythrospermus, leucanthus, leucodon, leucoglossus, leucographus, leucophaeus, leucotrichus, liparocarpus, melanantherus, melanopsis, melanostachyus, ochroleucus, ochrospermus, poliochloroides, polychromus, tephrocephalus, xanthochlorus, xanthophoeniceus*) to 10 (*albiflorus, atropurpureus, atroviolaceus, luteoalbus, luteoviridis, pallidiflorus, roseoluteus, tricolor, versicolor, viridiflorus*).

It is also worth mentioning the greater number of adjectives of mixed origin combining a Greek and Latin root (*albicaulis, atropurpureus, auricomus, glaucolivaceus, glaucovirens, purpurocaeruleus, viridisepalus, xanthifolius*).

The compound adjectives mainly signify the coloration of the different morphological parts of the plant – flowers, leaves, stems, seeds, etc., more rarely – of the whole plant. Therefore, as a second element in the composition of the compound adjectives the most often used morphemes are:

- *-florus* flower
- *-folius* leaf
- *-anthus* (Gr.) flower
- *-phyllus* (Gr.) leaf
- *-podus* (Gr.) pedicle
- *-spermus* (Gr.) seed
- *-carpus* (Gr.) fruit
- *-sepalus* (Gr.) sepal
- *-antherus* (Gr.) anther
- *-stachyus* (Gr.) spike
- *-caulis* (Gr.) stem
- *-cephalus* (Gr.) head
- *-comus* (Gr.) hair.

3.4. Participles

As a verbal adjective, the participle can fulfill the function of a specific epithet in binomial denominations. 19 participles are found in this research (13 present active participles and 6 past passive participles).

The present active participle, which has one nominative form for all three genders, always ends on *-ns* regardless of the gender of the generic name - eg. *canescens* from the verb *canesco* to turn hoary-white (*Asyneuma* [neuter] *canescens*, *Populus* [feminine gender] *canescens*, *Rubus* [masculine gender] *canescens*).

The past passive participle has three nominative forms for the three genders. Hence, its form within a binomial denomination depends on the gender of the generic name - eg. *variegatus, a, um* from the verb *variego* to vary (*Aconitum* [neuter] *variegatum*, *Iris* [feminine gender] *variegata*).

Among the participles, as among the other types of adjectives, are found synonyms to indicate different shades in the coloration and to be precise in detail the particular epithet:

- *candicans* – *canescens*: shiny white – whitish
- *fuscatus* – *fuscus*: darkened, dusky-brown – dark, bright-brown
- *lutescens* – *luteus*: becoming yellow – yellow
- *nigrescens* – *nigricans*: becoming black, darkening – blackish with maturity, almost black
- *pallens* – *pallescens*: pale, pallid – becoming pallid, fading
- *picturatus* – *pictus*: painted, picture-like – painted, ornamental

4. Conclusion

Coloration is one of the most visible plant features so the precise selected specific epithet contributes to a fuller and detailed description of the particular species.

The number of adjectives meaning coloration is relatively limited (134 in this review). Despite this, they are widely used as specific epithets in many binomial denominations, especially the simple ones like *albus*, *niger*, *ruber*, etc.

As for the type of adjectives, the following regularity is observed – the primary and derivative adjectives signify mainly the overall coloration of the plant. On the other hand, the compound adjectives accent its particular morphological parts (blossom, leaf, seed, etc.).

An essential requirement for lexemes in the terminological language is accuracy and unambiguity. It is necessary, however, to pay attention to several epithets with possible additional connotations:

- *nivalis* (snowy) and *cretaceus* (chalky) – besides coloration, they could also mean the plant habitat
- *lucidus* (bright, shining) – according to some researchers directs to a new species, growing in a similar habitat as another species of the same genus
- *laetus* (happy) – besides the idea of brightness and luster could also mean "fruitfulness, abundance"
- *tristis* (sad) – dark, gloomy, due to the monotonous muted color or the appearance, but also "disagreeable, bitter of taste"
- *jaceus* – the epithet derives from the Greek name of hyacinth and metonymically accepts the meaning "violet in color" because this color dominates among the species of the genus *Hyacinthus*

Specific epithets meaning plant coloration expand and supplement knowledge about them and direct attention to characteristic signs that can provide valuable information about the particular species. The linguistic analysis of the scientific Latin name contributes to the full-fledged use of that information.

Compliance with ethical standards

Disclosure of conflict of interest

The article is an independent development of the author, with no supporting grants or competing interests.

Statement of ethical approval

The current research does not contain any studies the author performed on animals or human subjects.

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