JURAJ HRAŠKO

SOIL MAP OF SLOVAKIA

INTRODUCTION

The soil map of Slovakia has been worked out on the scale of 1 : 1 000 000 especially on the basis of our own detailed investigation of soils in the whole territory of Slovakia, carried out in the years 1959—1961, as a part of the investigation of soils for the compilation of the soil map of the Czechoslovak Socialist Republic, on the above-mentioned scale. We have also portly used the materials from the preceding investigation of soils, futher the preceding publications of survey maps of soil types (Novák, Spirhanzl, Janovský, Hrošso and the maps of the Water Economy Plan, compiled on the basis of the works of various experts), as well as some publications in which the agricultural and forest soils are characterized (Hrošso 1958, Maláč 1962, Šály 1962). We have also made use of various published materials (writings and maps) concerning the factors and conditions of the soil-forming process in the territory of Slovakia.

The map elaborated by us is, however, different from the preceding maps, because it brings a new conception of taxonomic units, as well as a new conception of symbols used, which may be seen from the key. Even though we had at our disposal more factual material (especially our own morphological descriptions and our own analytical material) than the preceding authors, we consider the elaborated map of soils more or less as an outline. We shall make it more precise after finishing the Complex investigation of the mapping of soils on a large scale (1 : 10 000 for every farm) and after a suitable generalization of thus elaborated soil maps (on the scale of 1 : 50 000 for the needs of districts and on the scale of 1 : 200 000 for the survey soil map of the Czechoslovak Socialist Republic).

CONCEPTION OF SOIL UNITS WHICH WE DIVIDE OFF ON THE SOIL MAP

The basic unit which we divide off on the presented soil map is the soil type,[1] or some more important subtypes. With some soil types in which the content is very broad (for instance brown soils), we divide off lithologic and climatic variants. The classification used for the map was elaborated in detail in the collective methodology of the complex investigation of soils, part A (1962).

In the territory of Slovakia the following soil types are found (we give their concise characteristic, conditions of occurrence and some sub-types):

[1] The concepts soil type and sub-type in our country agrees with the concepts of Soviet soil experts: they were formulated by a commission for the nomenclature and classification of soils in the year 1958.

1. Chernozems

Tey form a continuous region interrupted only by the river alluviums (in the Danubian Lowland).[2] They occupy the lowest positions especially on the loess hilly country. Smaller islands of chernozems are also found in some low basins and in the East Slovakian Lowland. The total annual precipitation amounts to 600 mm., the average temperature to 10—8,5 °C. The chief elementary pedogenetic process is a strong bioaccumulation of organic substances (humus). We distinguish carbonaceous chernozems the most northwestern extremity of the Danubian chernozems,[3] leached chernozems and degraded chernozems, in which in the territory of Slovakia we notice in substance, two tendencies of degradation — the chernozem which has a rusty-brown colouring of an intermediate horizon, the origin of which may be seen in the weathering of loess after it is freed from lime. These chernozems are called burozemic in contrast with the chernozems in which the illimerization is going on,[4] and which we have so far identified also in the territory of Slovakia in the East Slovakian Lowland.

Stratigraphy of the profile:	
Leached chernozem	$H, hP/_{Ca}, P_{Ca}$[5]
Myceloid carbonaceous chernozem	$H/_{Ca}, hP_{Ca}, P_{Ca}$
Burozemic chernozem	$H, H(v), (h)v, (v)P, P_{Ca}$
Illimerized chernozem	$H(e), (h)I_1, (h)I_2, iP, P_{Ca}$

[2] We use Hromádka's division.

[3] See: Hraško 1964.

[4] For the detailed description of these soils see Němeček, 1963.

[5] We give here the indices used in Czechoslovakia which are in essence derived from the suggestions of A. N. Sokolovskij. By means of these indices we can denote the properties of genetic horizons not only qualitatively, but also express their quantity as also the geologic heterogeneity of the substratum.

The cheif symbols are the following:

H — humus horizon (A).
O — horizon of "raw" humus (A_0).
T — horizon of remains turned into peat.
E — eluvial horizon (A_2).
I — illuvial horizon (B).
V — horizon of weathering.
G — gley horizon.
g — horizon (or marks) of surface gleying.

Besides this we also denote the presence of carbonates by the symbols — Ca, of soda — K and other soluble salts — S.

According to the quantitative manifestation of the processes we distinguish (e) — weakly eluvial horizon; e — strongly eluvial horizon; E — eluvial horizon.

In the illuvial horizon we distinguish according to the character of the processes a textural horizon arisen by the process of illimerization (lessivation) and we denote it (i), i, I and the illuvial horizon arisen as a result of podzolization to which we add a supplementary symbol s — in the accumulation of R_2O_3; h — in the accumulation of organic subtances and sh — in the accumulation of R_2O_3 and organic substances. (The indices then will be $(i)_s$; i_s, I_s, or I_h, I_{sh}.)

2. Burozems

They are spread over the hilly country in the higher altitudes (200—300 m.) in the warm to moderately warm region, in the dry to moderately moist district. The average yearly temperature is 8—8,5 °C, the total amount of precipitation being 600—700 mm. per year. They are found especially on the loess and partially on the non-limy loess covers, on the substrates rich in secondary minerals. The original undergrowth consisted of thermophilic oak forest vegetation. The chief pedogenetic process is the intensive intrasoil weathering and a partial illimerization with a simultaneous strong bioaccumulation. The content of the humus is 1,5—2,5 % coefficient of the textural differentiation to 1,5, so that in the typical soils we do not observe any marks of surface gleying. The water regime is on the boundary line between the periodically permacid and impermacid one.

Stratigraphy of the profile: H, (h)i, i, P_{Ca}.

Subtypes: illimerized burozem and pseudogley burozem.

3. Illimerized soils

They are spread in the plains of the hilly country and in the lower mountains especially, however, in the basins on the one hand in low altitudes[6] (Lučenec Basin) and on the other in the basins of medium altitude (the basin of the Upper Nitra, the Zvolen Basin) and in the high altitude basins (Poprad Basin). In eastern Slovakia we meet with them even in the lowlands (Michalovce, Sobrance). Their occurrence is linked with the pleistocene loess non-carbonaceous covers and with the slope deluviums, mostly loamy or clayish-loamy. The chief elementary pedogenetic process is illimerization, i. e. the non-differentiated translocation of particles $< 1\,\mu$ (clayey minerals, free oxides of iron) without their changes and distrubance. The coefficient of the textural differentiation often exceeds 2.5. Such an expressive illuvial horizon in the climatic conditions of occurrence of illimerized soils, conditions their zonal gleying by surface waters. The water regime is permacid. The content of the humus is 1.5 — 2.5 %, its content, however, quickly decreases already in the eluvial horizon.

Stratigraphy of the profile: h, E(g), (I)(g), I_1(g), I_2, iP, P.

Subtypes: illimerized pseudogley soil.

4. Pseudogley soils

We find them in the plains and flat depressions of the zone of hilly country and lower mountain chains, especially on heavier loess covers, slope deluviums and tertiary clays. In more arid conditions their occurrence is linked with places with a supplementary surface humidity of soil (depression) on weak permeable substrates. The chief elementary pedogenetic process is surface gleying which goes on as a result of alternation of the seasons (in the course of the year), of increase of the content of humidity with periods of normal humidity, or of the drying of the whole profile. In the pseudogley soil we notice a localized decreasing migration of substances, a localized whitening and reducing processes, the result of which is an expressive hardening of the profile into marble.

Stratigraphy of the profile: hg, eg, ig, (i)P(g), P(g), P.

[6] We are using the terminology of Lukniš and Plesník 1960.

5. Brown forest soils

Brown soils are our most widely spread types of soils. They are found in the most various bioclimatic conditions and in various altitudes, as a result of which we can divide them into some bioclimatic variants. They are found most often on eluviums or shallow deluviums of strong basic rocks, most often with an admixture of gravel generally on slopes and on strongly rugged relief. The properties of the basic rocks are, in definite bioclimatic conditions, strongly influencing the soil-forming process and they condition the rise of lithogenic variants (for example brown soils on volcanic acid to alkaline rocks:, brown soils on sedimentary strengthened rocks, or on sedimentary non-strengthened rocks, etc.). The original undergrowth of brown soils were partly oak forest vegetation, mostly, however, beech forest vegetation, in higher altitudes mixed forests, often also coniferous monocultures. The chief elementary pedogenetic process is weathering in the soil profile, the result of which is, especially on the substrates rich in primary minerals, that hydrates Fe_2O_3 are freed, which colour the profile to a yellow, ocre, brown to chocolate-brown colour, which depends especially on their amount and hydration.

Stratigraphy of the profile: h, (h)v, V, vP, P.

According to the evolving tendencies we distinguish two groups of brown soils:

a) Brown soils which are in their evolution closely bound with illimerized soils (sub-type brown illimerized soil), with rendzinas (on carbonaceous rocks freed from lime — sub-type brown rendzina) and with pseudogley soils (in case the products of weathering give a heavy substrate — sub-type brown pseudogley soil).

b) Brown acid soils which are in their evolution closely bound with podzolic soils and in which the eluvial horizon has not been formed especially as a result of the systematic enriching of the profile by the products of weathering of primary minerals. In the brown acid soil however, in some cases podzolization can be noticed (sub-type brown podzolized soil).

6. Podzolic soils

They are found in the cold, large to very large region in the mountain and high mountain zone, but also in the lower altitudes (Šály 1962 mentions profiles in altitudes of 210 m) often locally among acid and illimerized soils. Podzolic soils occupy a special place on sand substrates on which they are evolving locally among brown soils and brown illimerized to podzolic soils (Ultramontane Lowland) under the monoculture of the pine. The basic elementary pedogenetic process is podzolization, i. e. the differentiated translocation of iron and aluminium, together with low molecular organic substances after the destruction of clayey minerals.

Stratigraphy of the profile: O, Oh, E, I_{sh}, $(i)_s$, i_s vP, vP, P.

7. Regosols

They occur from the lowlands to the moutains and they are bound with extreme substrates — sands, sandstones and clays. According to the zone in which the regosols are found, they have a tendency of evolving towards the zonal soils. In case of carbonaceous sandy substrates, their tendency of evolution is towards chernozems (Danubian Plain), on non-carbonaceous sands towards brown to illimerized and podzolic soils (Ultramontane Lowland). Regosols on clays in the wetter regions are evolving towards pseudogley soils.

Stratigraphy of the profile: h, (h)P, P.

8. Rendzinas

The conception of rendzinas in this country is identical with the one used in world literature. Rendzinas are found in Slovakia in large amounts from the hilly country to the mountains and their occurrence is bound with the occurrence especially of limestones and dolomites.

Stratigraphy: H_{Ca}, hP_{Ca}, P_{Ca}.

Subtype: brown rendzina.

9. Alluvial soils

They are found in recent river valleys. Their composition is very various and it is conditioned by the character of alluvial sediments which can be from sandy to clayey soils, carbonaceous and non-carbonaceous, containing humus or not containing it, etc. On older river valley deposits we notice the development of zonal soils.

Subtypes: alluvial chernozem soils, alluvial meadow soils, alluvial gley soils, alluvial pseudogley soils, alluvial burozem soils, alluvial illimerized soils, alluvial solonchak soils.

10. Dernogley soils

They are spread from the moderately warm region to the cold region and they are bound with the terrain depressions with the high-lying, little changing level of ground waters poor in minerales. They also occur in the narrower river valleys and on the deluviums of neutral and acid rocks in the region of influence of slope waters poor in minerals. The chief elementary pedogenetic process is the gley process.

Stratigraphy of the profile: h(G), (h)p(G), PG, G.

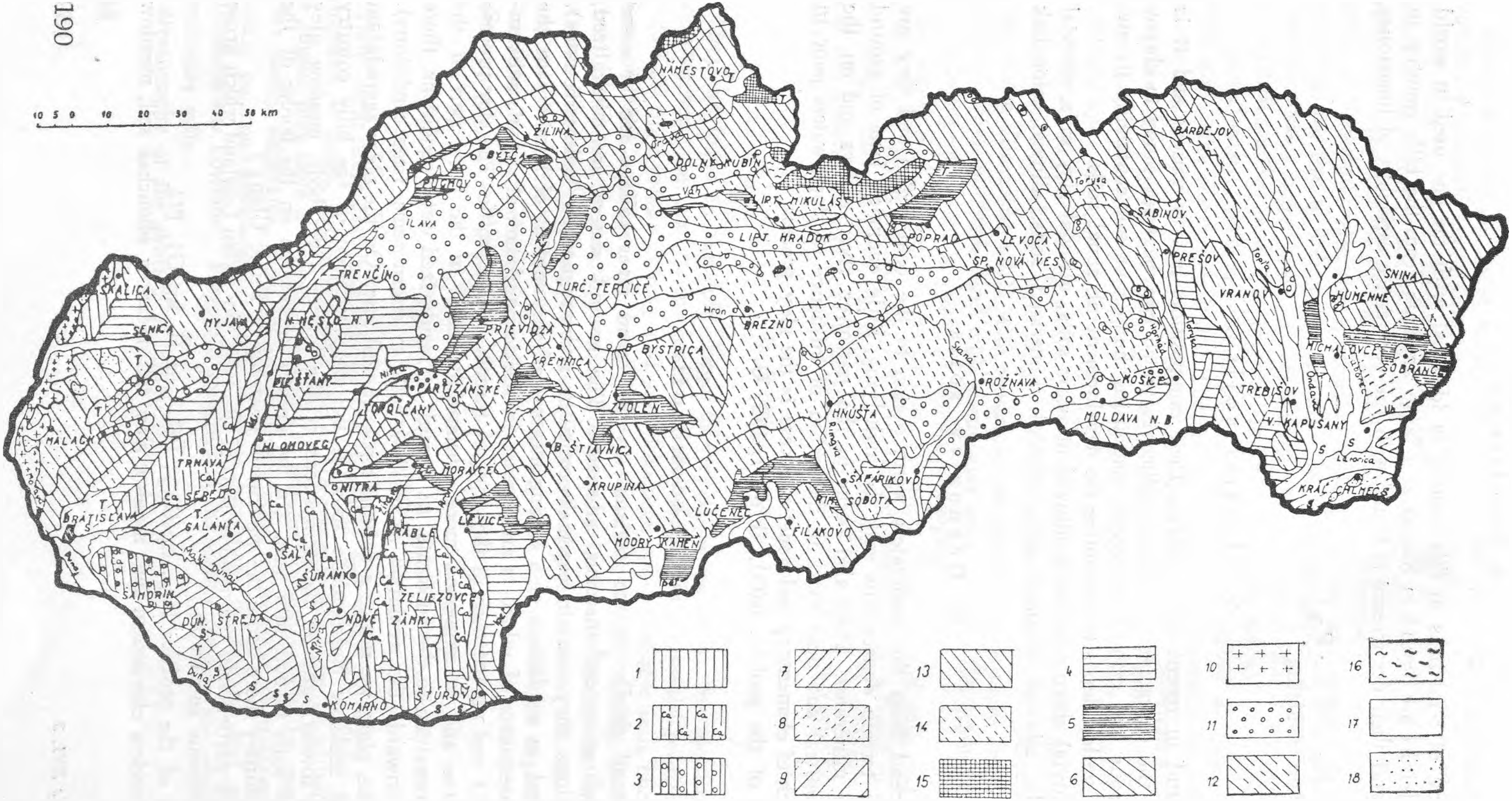
11. Meadow soils

They are found chiefly in the lowlands, in the broad river valleys and in some basins on alkaline or carbonaceous substrates. The ground waters are mineralized, (in our conditions they contain especially calcium and magnesium hydrocarbonates). They are formed in conditions of a lasting increase of the content of humidity in the profile, the consequence of which is an increase in the accumulation of organic substances (up to 5 %) and an increase in the depth of humus in the profile. The gley process is little intensive and is expressed more substantially only in the lower part of the profile in the transition to the substrate. As a result of regularized water conditions, there is a tendency towards the evolution of meadow soils to chernozems (step conditions). In the Danubian plain we notice a definite topographical law. On the older aggradation plains we find meadow chernozemic soils, in the neighbouhood of the hilly country (relatively the lowest) and in the depressions of the former river beds, meadow gley soils to muddy soils turned into peat. (In the greater depression on the border of the Trnava hilly country there arose the wellknown peat-bog of Pusté Uľany.)

We divide off particularly the meadow soils of the East Slovakian Lowland which arose on non-carbonaceous substrates.

Stratigraphy of the profile: H_{Ca}, $hp(G)_{Ca}$, PG_{Ca} or H, hp(G), PG.

Subtypes: meadow chernozem soil, meadow gley soil, meadow solonchak soil, meadow solonetz soil.


10 5 0 10 20 30 40 50 km
NÁMESTOVO
ŽILINA
DOLNÝ KUBÍN
BYTČA
PÚCHOV
ILAVA
LIPT. MIKULÁŠ
LIPT. HRÁDOK
POPRAD
LEVOČA
SP. NOVÁ VES
BARDEJOV
SABINOV
PREŠOV
VRANOV
SNINA
HUMENNÉ
MICHALOVCE
SOBRANCE
TREBIŠOV
V. KAPUŠANY
KRÁĽ. CHLMEC
KOŠICE
MOLDAVA N. B.
ROŽŇAVA
HNÚŠŤA
ŠAFÁRIKOVO
RIM. SOBOTA
FIĽAKOVO
LUČENEC
MODRÝ KAMEŇ
KRUPINA
B. ŠTIAVNICA
ZVOLEN
B. BYSTRICA
BREZNO
KREMNICA
PRIEVIDZA
TURČ. TEPLICE
TRENČÍN
N. MESTO N. V.
MYJAVA
SKALICA
SENICA
MALACKY
PIEŠŤANY
PARTIZÁNSKE
TOPOĽČANY
HLOHOVEC
TRNAVA
SEREĎ
GALANTA
BRATISLAVA
NITRA
ZL. MORAVCE
LEVICE
VRÁBLE
ŠAĽA
ŠURANY
ŽELIEZOVCE
NOVÉ ZÁMKY
ŠAMORÍN
DUN. STREDA
KOMÁRNO
ŠTÚROVO
Váh
Orava
Hron
Nitra
Slaná
Rimava
Torysa
Topľa
Ondava
Laborec
Latorica
Uh
Malý Dunaj
Dunaj
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Map 1.

12. Saline soils

Under this common name we understand solonchak as well as solonetz soils, but also solonchaks, solonetzes, and solonchak solonetz soils (the last named are most found in our territory). Saline soils occur as islands in the warm regions of the Slovakian lowlands (the Danubian and the East Slovakian Lowlands), chiefly among the alluvial and meadow soils in places where among the rising salts are found also hydrocarbonates (and sometimes even carbonates) of magnesium as also chlorides and sulphates oi bi-valent and alkaline metals. Relatively most of the area is taken up by alluvial and meadow solonchak soils and solonchak-solonetz soils, locally are also found on very small areas even solonchaks (Zlatná na Ostrove, Veľké Kosihy) and meadow solonetzes (Palárikovo).

Stratigraphy of the profile of the solonchak: h_s , $(h)P_s$, $P(G)_s$.

Stratigraphy of the solonetz: hE, HI, hi(G), $P(G)_s$.

KEY TO THE SOIL MAP ON THE SCALE 1 : 1 000 000

In the key to the soil map which is closely bound with the accepted classification and with our conception of the taxonomic units, we have above all kept to the principle that while the classification is not at all dependent upon the scale of the map, the structure of the key is closely connected with the scale. We have therefore chosen such a scale that suits the best survey and the graphical desciption, but also that the symbols used be sufficietly detailed and that they reflect in the highest degree the dominant properties of the soil. The geography of the soils of Slovakia is influenced especially by two characteristic causes:

a) The vertical zonality, caused by a considerable ruggedness of the territory of Slovakia (the difference in altitudes from 94 to 2663 m).

b) The local influence of the basic rocks.

For this reason it is difficult enough on the accepted scale to divide off on the soil map the individual soil types, or the lower taxonomic units (sub-types or varieties). Hence we have chosen in substance such a key that the soil map characterizes the soil cover of a definite region as a whole. We have started from the basis of the discussion at the seminary FAO/UNESCO concecrning the correlation of the suggestions for a soil map of Europe in Moscow (1962) and we divide off in substance two structures of the soil cover:

1 Territories with a relatively homogeneous soil cover where there dominates an absolutely definite type of soil, or sub-type and where the occurrence of other soil types is negligible and bound with the extreme conditions in the relief, or in the rock (mostly hydromorphic soils — dernogley soils, pseudogley soils, or regosols on sands brought by winds).

2. Territories with a non-homogeneous cover which is composed of various types and sub-types but none of which shows a definite dominance, but which is closely bound with a definite element of the mesorelief, with definite hydrological conditions, or a definite basic rock (association of soils).[7]

[7] Such for instance is the associaton of the soils denoted in the key as "Meadow soils, as a rule carbonaceous, meadow chernozemic soils and meadow chernozems on carbonaceous alluvial deposits" which are found in the Danubain plain. Meadow chernozems are found on the raised portions of the alluvial valley (chiefly the older mounds and older alluvial valley, where the

We denote by symbols on the map the occurrence of solonchak and solonetz soils which, however, form especially islets and complexes of small dimensions. We do not classify these soils into a particular structure of the soil cover (complexes) since in our conditions only seldom do they lose the character of soils among which they are found (for instance meadow solonchak soil). The occurrence of these soils is marked on the map by the letter S.

The occurrence of peat-bogs and peaty soils is similarly marked by T as these soils are very rare in Slovakia and take up small areas (as a rule filled depressions). Only the occurrence of greater localities is marked, or the occurrence of a larger number of smaller localities. We do not distinguish in the marking of peat-bogs in higher altitudes, in the lowlands, or mixed ones, their genesis, however, may be deduced from the map.

Starting from these principles we have compiled a key to the soil map which contains in all 18 symbols classified into three large groups.

I. The soils of plain and moderately rugged regions which are divided according to the relation of ground waters with the soil-forming process into
   A. terrestrical soils (1—6).
   B. semi-terrestrical soils (7—10).

II. The soils of the hilly regions and of the mountain regions (11—16).

III. Azonal soils (17—18).

The soils of the plain regions are shown on the soil map in the first structure of the soil cover, besides the B sub-group where we use the associations of soils. The latter are also used in the marking of the soil cover in the region of the hilly country and in the mountains where, as a result of much ruggedness of the relief, it is not possible to denote the soil conditions otherwise. Azonal soils (alluvial and regosols) are divided off by the same symbols, although in nature they have partly a character of the soil of that zone in which they are found.

In accordance with the explanation given above the key to our map looks as follows:

I. Soils of plain and moderately rugged regions.

A.Terrestrical soils.

1. Chernozems and degraded chernozems on the loess.
2. Myceloid carbonaceous chernozems on the loess.
3. Chernozems chiefly carbonaceous on shallow alluvial soils resting on gravel.
4. Burozems on loess areas and loess clays.
5. Illimerized soils (in the more humid regions and on heavier substrates to pseudogley soils) on loess clays and deeper deluviums.
6. Brown soils on sands, locally illimerized up to podzolic soils.

B. Semi-terrestrical soils.

7. Meadow soils, as a rule carbonaceous, meadow chernozemic soils and chernozemic meadow soils on carbonaceous alluvial deposits.
8. Meadow soils, meadow gley soils, alluvial gley soils and dernogley soils on non-carbonaceous alluvial deposits.
9. Meadow soils, locally marshy, as a rule carbonaceous, on sandy substrates.
10. Meadow soils locally marshy, as a rule non-carbonaceous, on more sandy substrates.

---

influence of the ground waters on the soil-forming process is, it is true, observable but does not interfere more expressively with the process in the upper parts of the profile; further on those parts drained long ago which are not going through the stage of steppe-formation. Locally are also found here muddy soils, valley peat-bogs) moors with not a large area and in the terrain depressions and the former branches of the meandering rivers (at the present already dried) local meadow gley soils.

II. Soils of hilly and mountain regions.
11. Rendzinas on carbonaceous rocks.
12. Brown soils on eluviums or deluviums of solid basic rocks, locally illimerized and pseudogley soils.
13. Brown soils of hilly and mountain districts, chiefly acid.
14. Brown acid and podzolized soils (up to podzols) on eluviums and deluviums of solid basic rocks.
15. Mountain podzols on eluvium and deluviums of solid basic rocks.
16. High mountain primitive soils.

III. Azonal soils.
17. Alluvial soils in various stages of evolution and dernogley soils on the alluviums
18. Regosols chiefly on sandy and shallow stone substrates.

LITERATURE

1. Hraško J., *Mycelárne karbonátové černozeme Podunajskej nížiny (Myceloid carbonaceous chernozems in the Danubian Lowland)*. Geografický časopis, č. 1, 1964. — 2. Hromádka J., *Třídění povrchových tvarů na podklade jejich vývoje (Classification of surface forms in Slovakia on the basis of their evolution)*. Sborník Prírodovedeckého odboru vlastivedného múzea, Bratislava 1931. — 3. Hroššo F., *Pôdoznalectvo (Soil Science)*. SVPL 1958. — 4. Lukniš M. — Plesník P., *Nížiny, kotliny a pohoria Slovenska (Lowlands, basins and mountains of Slovakia)*. Osveta 1961. — 5. Maláč B., *Hlavné pôdne typy Slovenska (Chief soil types of Slovakia)*. SVPL 1962. — 6. Němeček J. a kol., *Půdoznalecký průzkum ČSSR (Soil science investigation in Czechoslovakia, over-all methodology)*. Souborná metodika, část A, II. vyd. 1962. — 7. Němeček J., *Genetická a agronomická charakteristika půd ČSSR (Genetic and agronomic characteristic of soils in Czechoslovakia)*. Sborník Rostlinná výroba, č. 3—4, 1963. — 8. Šály R., *Hlavné typy lesných pôd na Slovensku (Chief types of forest soils in Slovakia)*. SAV, 1962. — 9. Tjurin J. V. a kol., *Pôdna mapa Európy* (nepublikované) *(Soil map of Europe,* not published). — 10. Tjurin J. V. a kol., *First soil correlation seminar for Europe,* Moscow. 16—18th July 1962. World Soil Resources Reports 3, FAO (UNESCO).

Reviewed by K. Tarábek

Translated by Anton Farkaš, B. Sc. (Econ.) Lond.

Juraj Hraško

PÔDNA MAPA SLOVENSKA

Predkladaná pôdna mapa Slovenska bola rozpracovaná na základe vlastných výskumov. Použili sme však aj pramene iných autorov, najmä z hľadiska konfrontácie nášho pojatia pôdnych jednotiek s týmto v staršej literatúre, resp. v prácach niektorých iných autorov. Podľa týchto prác, ale aj podľa prác z iných prírodovedných disciplín (najmä z geológie, geomorfológie, geobotaniky, klimatológie) sme urobili hranice pôdnych jednotiek na mape.

Pojatie pôdnych typov, tak ako ich opisujeme v článku, je v podstate totožné s tým, ktoré je podrobne rozpracované v Súhrnnej metodike pôdoznaleckého prieskumu.

V legende k pôdnej mape, ktorá je tesne spojená s prijatou klasifikáciou a naším pojatím taxonomických jednotiek, sme sa držali predovšetkým zásady, že kým klasifikácia nie je vôbec závislá od mierky mapy, štruktúra legendy s mierkou bezprostredne súvisí.

Vydeľujeme v podstate dve štruktúry pôdneho pokryvu:

1. Územia s pomerne rovnorodým pôdnym pokryvom, kde celkom dominuje určitý pôdny typ, resp. subtyp a kde výskyt iných pôdnych typov je nepatrný a viazaný na extrémne pomery v reliéfe, resp. hornine (najviac hydromorfné pôdy — drnoglejové, oglejené, resp. drnové pôdy na viatych pieskoch).

2. Územia s nerovnorodým pokryvom, ktorý sa skladá z rôznych typov a subtypov, ale ani jeden z nich nejaví určitú dominanciu, ale je prísne viazaný na určitý prvok mezoreliéfu, určité hydrologické podmienky alebo určitú materskú horninu (asociácia pôd).

Znakmi označujeme na mape výskyt solončakových a slancovitých pôd, ktoré však tvoria najmä ostrovčeky a komplexy malých rozmerov. Do osobitnej štruktúry pôdneho pokryvu (komplexov) tieto pôdy nevydeľujeme, pretože v našich podmienkach len zriedka strácajú charakter pôd, medzi ktorými sa nachádzajú (napr. lužná pôda solončakovaná). Výskyt týchto pôd označujeme na mape písmenom S.

Podobne označujeme výskyt rašelinísk a rašelinových pôd písmenom T, pretože týchto pôd je na Slovensku veľmi málo a zaberajú neveľké plochy (spravidla zaplnené depresie). Označujeme len miesta výskytu väčších lokalít, resp. výskyt väčšieho množstva menších lokalít.

Vychádzajúc z týchto princípov, zostavili sme legendu k pôdnej mape, ktorá obsahuje celkom 18 znakov, zaradených do troch veľkých skupín.

I. Pôdy rovinných a mierne členitých oblastí, ktoré delíme podľa vzťahu podzemných vôd k pôdotvornému procesu na A. pôdy terestrické (1—6), B. pôdy semiterestrické (7—10).

II. Pôdy vrchovín a horských oblastí (11—16).

III. Azonálne pôdy (17—18).

Pôdy rovinných oblastí znázorňujeme na pôdnej mape v prvej štruktúre pôdneho pokryvu okrem podskupiny B, kde používame asociácie pôd. Asociácie pôd používame aj pri vyznačovaní pôdneho pokryvu v oblasti vrchovín a hôr, kde v dôsledku silnej členitosti reliéfu nie je možné pôdne pomery ináč znázorniť. Azonálne pôdy (nivné, drnové) vydeľujeme rovnakými znakmi, hoci v prírode majú čiastočne charakter pôd tej zóny, v ktorej sa nachádzajú.

V súlade s tým, čo sme uviedli, legenda k našej mape je takáto:

I. Pôdy rovinných a mierne členitých oblastí.

A. Pôdy terastické:

1. černozeme a černozeme degradované na spraši,
2. černozeme mycelárne karbonátové na spraši,
3. černozeme prevažne karbonátové na plytkých aluviálnych prekryvoch štrkov,
4. hnedozeme na sprašiach a sprašových hlinách,
5. illimerizované pôdy (v humídnejších oblastiach a na ťažších substrátoch až oglejené pôdy) na sprašových hlinách a hlbších delúviách,
6. hnedé pôdy na pieskoch, lokálne illimerizované až podzolované pôdy.

B. Pôdy semiterestrické:

7. lužné pôdy spravidla karbonátové, lužné pôdy černozemné a černozeme lužné na karbonátových aluviálnych uloženinách,
8. lužné pôdy, lužné pôdy glejové, nivné pôdy glejové a drnoglejové pôdy na bezkarbonátových aluviálnych uloženinách,
9. lužné pôdy, lokálne zbažinené spravidla karbonátové na piesčitých substrátoch,
10. lužné pôdy lokálne zbažinené, spravidla bezkarbonátové na piesčitejších substrátoch.

II. Pôdy vrchovín a horských oblastí.

11. rendziny na karbonátových horninách,
12. hnedé pôdy na elúviách, prípadne delúviách pevných materských hornín, lokálne illimerizované a oglejené pôdy,
13. hnedé pôdy vrchovín a hôr, prevažne kyslé,
14. hnedé pôdy kyslé a podzolované pôdy (až podzoly) na alúviách a delúviách pevných materských hornín,
15. horské podzoly na elúviách a delúviách pevných materských hornín,
16. vysokohorské alpinské a primitívne pôdy.

III. Azonálne pôdy.

17. nivné pôdy v rôznom stupni vývoja a drnoglejové pôdy v nivách,
18. drnové pôdy, prevažne na piesčitých a plytkých kamenitých substrátoch.