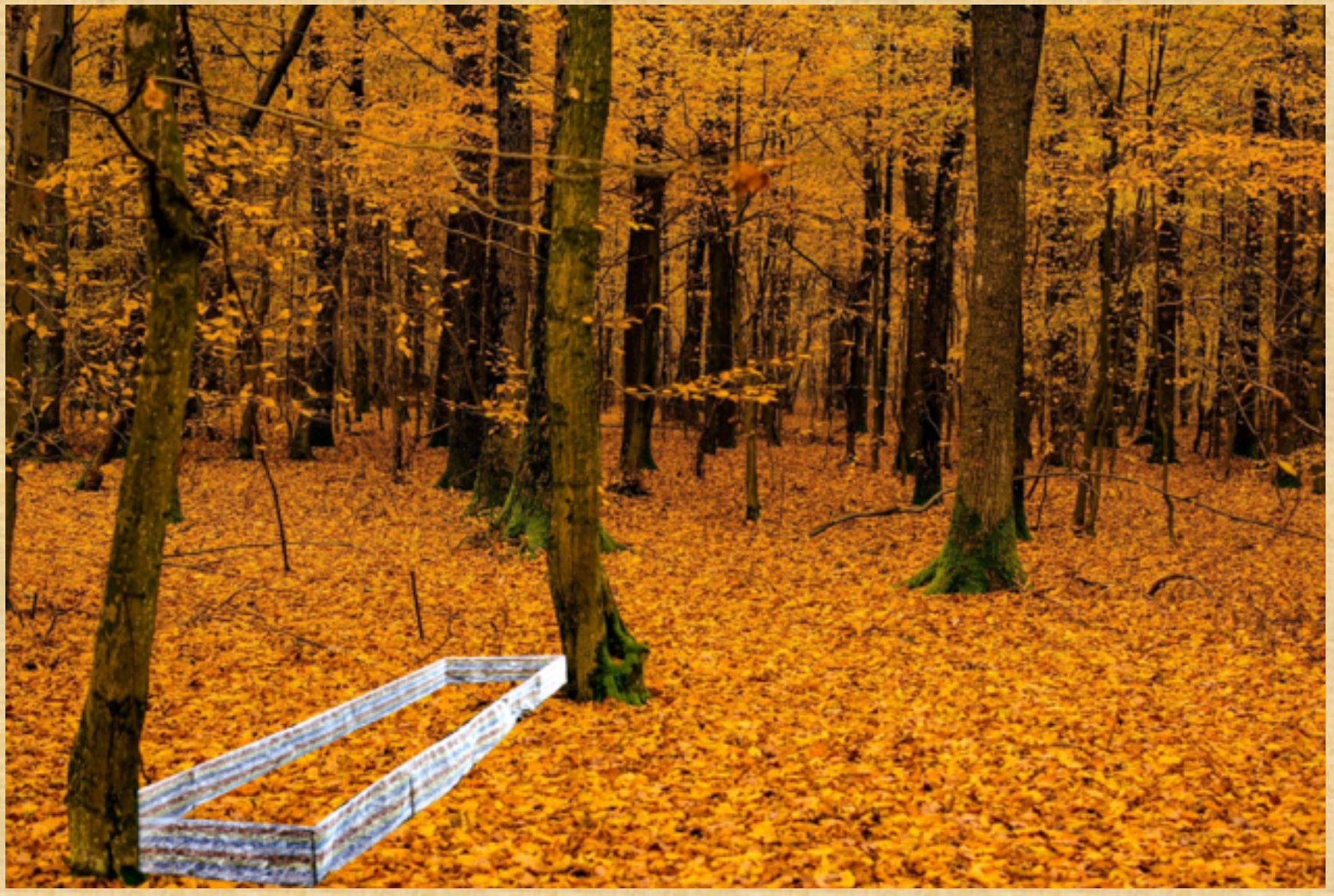
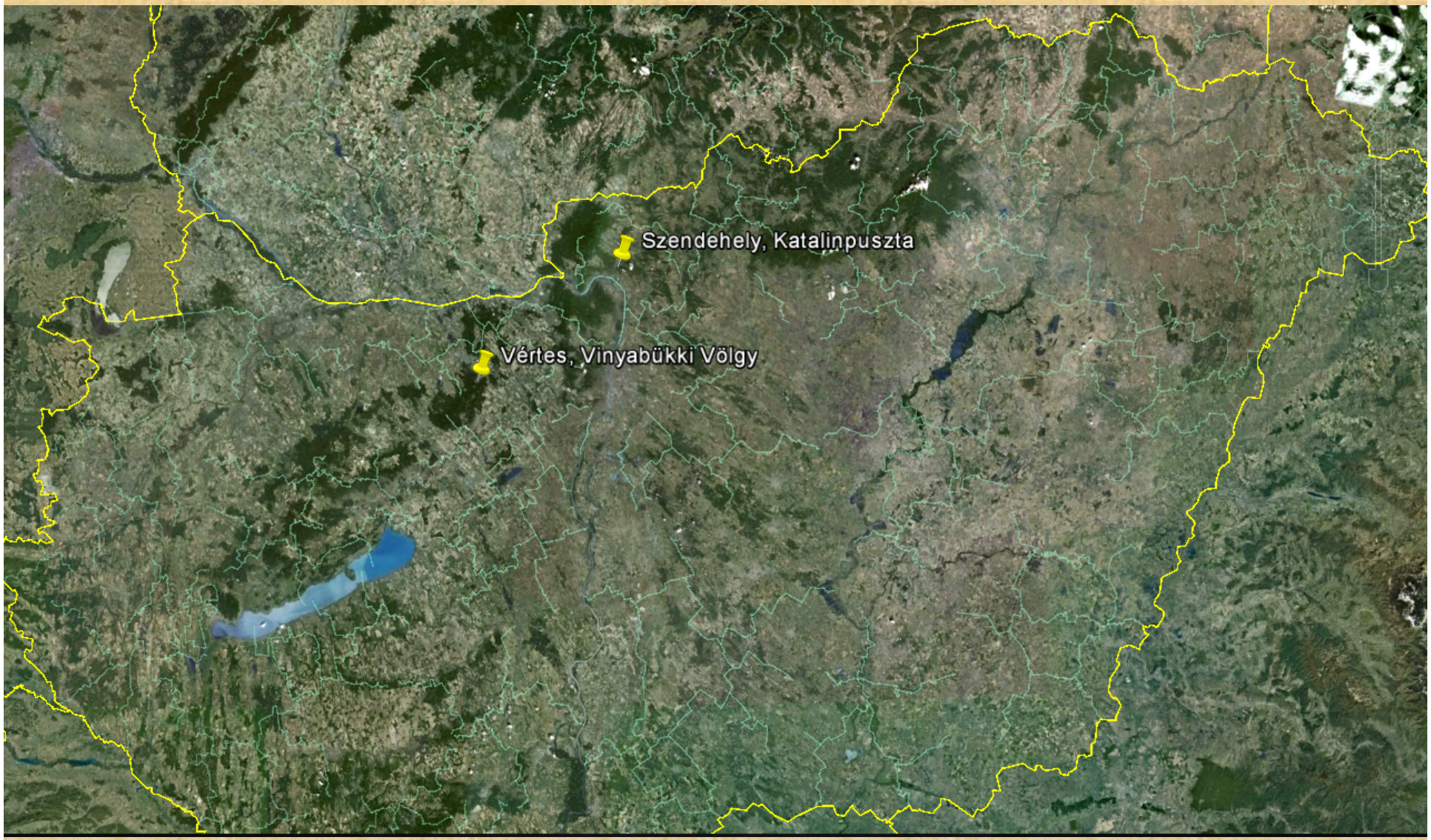
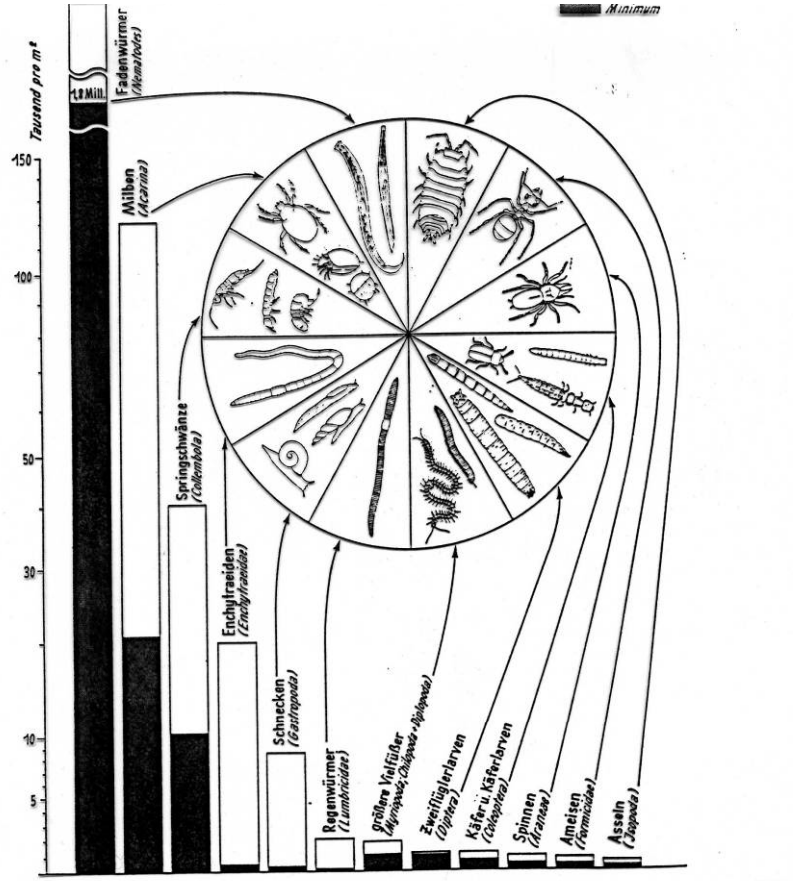
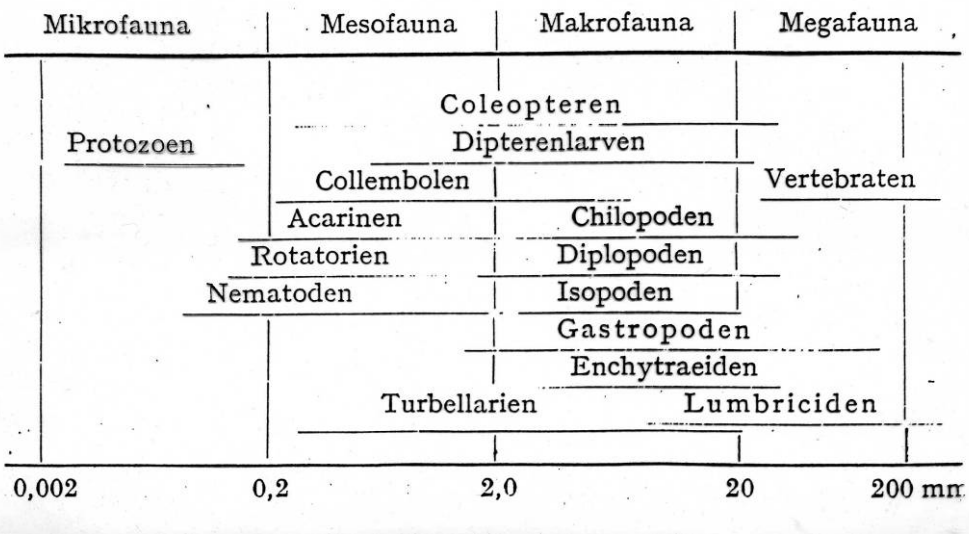
Ökoszisztéma mérnökök munkában – a földigiliszták szerepe a szervesanyag körforgalomban




Szendehely, Katalinpuszta
Vértes, Vinyabükki Völgy


Minimum
Tausend pro m²
1,9 Mill.
150
100
50
30
10
5
Fadenwürmer (Nematoden)
Milben (Acarina)
Springschwänze (Collembola)
Enchytraeiden (Enchytraeidae)
Schnecken (Gastropoda)
Regenwürmer (Lumbricidae)
größere Vielfüßler (Myriopoda: Chilopoda + Diplopoda)
Zweiflügelerlarven (Diptera)
Käfer u. Käferlarven (Coleoptera)
Spinnen (Araneae)
Ameisen (Formicidae)
Asseln (Isopoda)


Mikrofauna
Mesofauna
Makrofauna
Megafauna
Protozoen
Coleopteren
Dipterenlarven
Collembolen
Vertebraten
Acarinen
Chilopoden
Rotatorien
Diplopoden
Nematoden
Isopoden
Gastropoden
Enchytraeiden
Turbellarien
Lumbriciden
0,002
0,2
2,0
20
200 mm

Makro- und Megafauna von Waldböden (Lebendgewicht in g/m² Bodenoberfläche)

Autor	Volz 1957	Volz 1957	Volz 1957	Dunger 1958	Volz 1957	Borne-busch 1930	Volz 1957	Borne-busch 1930	Volz 1957	Nielsen 1949
Standort	Erlenwald auf Smonitza	Auwald auf Smonitza	Auwald auf Brauner Vega	Eschen-Eichenwald auf Brauner Vega	Mischwald auf podsoligem Pseudogley	Buchenwald Melica-Typ	Buchenwald auf podsoligem Buntsandstein	Buchenwald Rohhumus-Typ	Kiefernwald Rohhumus auf Sand	Fichtenwald Rohhumus
Total	49	70	63,5	66	32	37	14	14,8	5	9,9
Regenwürmer	33	62	59	39	16	28	8	1,1	1	1,6
Dipterenlarven	5	—	—	2	1	1	1	3,3	—	1
Käfer und -larven	1,5	—	3	2	14	1,5	2	3,2	3	3,8
Gehäuse-schnecken .	5	5	—	15	—	—	—	—	—	—
Nackt-schnecken .	—	—	—	—	—	4	3	1,6	—	—
Landasseln ...	1,5	—	—	1	—	0,1	—	—	—	—
Diplopoden ..	2	2	—	4	—	2	—	0,7	—	—
Chilopoden ...			—	1	—	0,2	—	4,1	—	1,8
übrige Gruppen	1	1	1,5	2	1	0,2	—	0,8	1	1,7

Törzs Annelida Lamarck, 1809

Osztály Clitellata Michaelsen, 1919

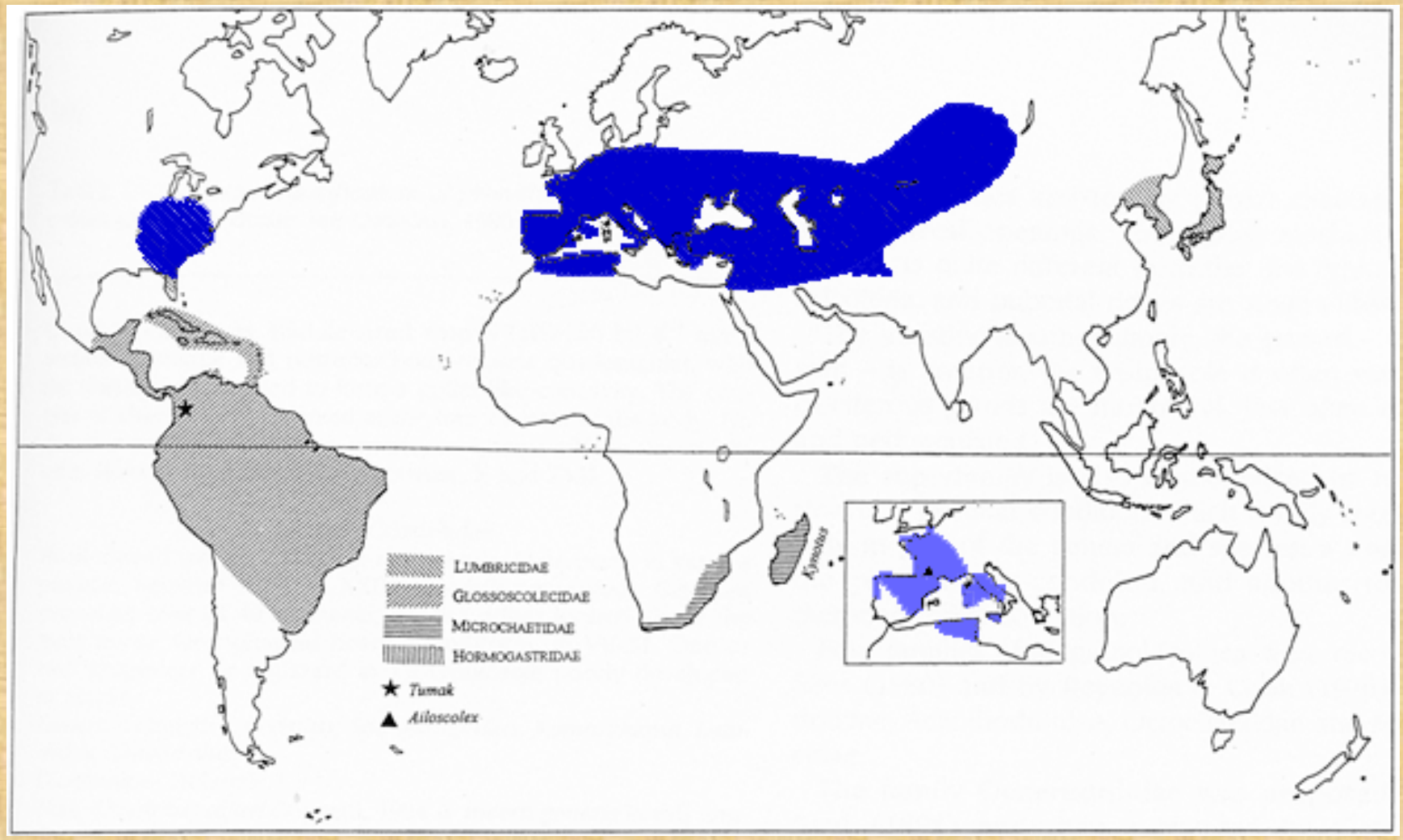
Alosztály Oligochaeta Grube, 1850

Öregrend Megadrili Benham, 1890

Rend Opisthopora Michaelsen 1929

Alrend Crassiclitellata Jamieson, 1988

Lumbricidae: ca. 1100 név 7-800 érvényesnek tekintett faj



Hormogastridae: ca. 30 valid faj

Epigeic – avarlakó

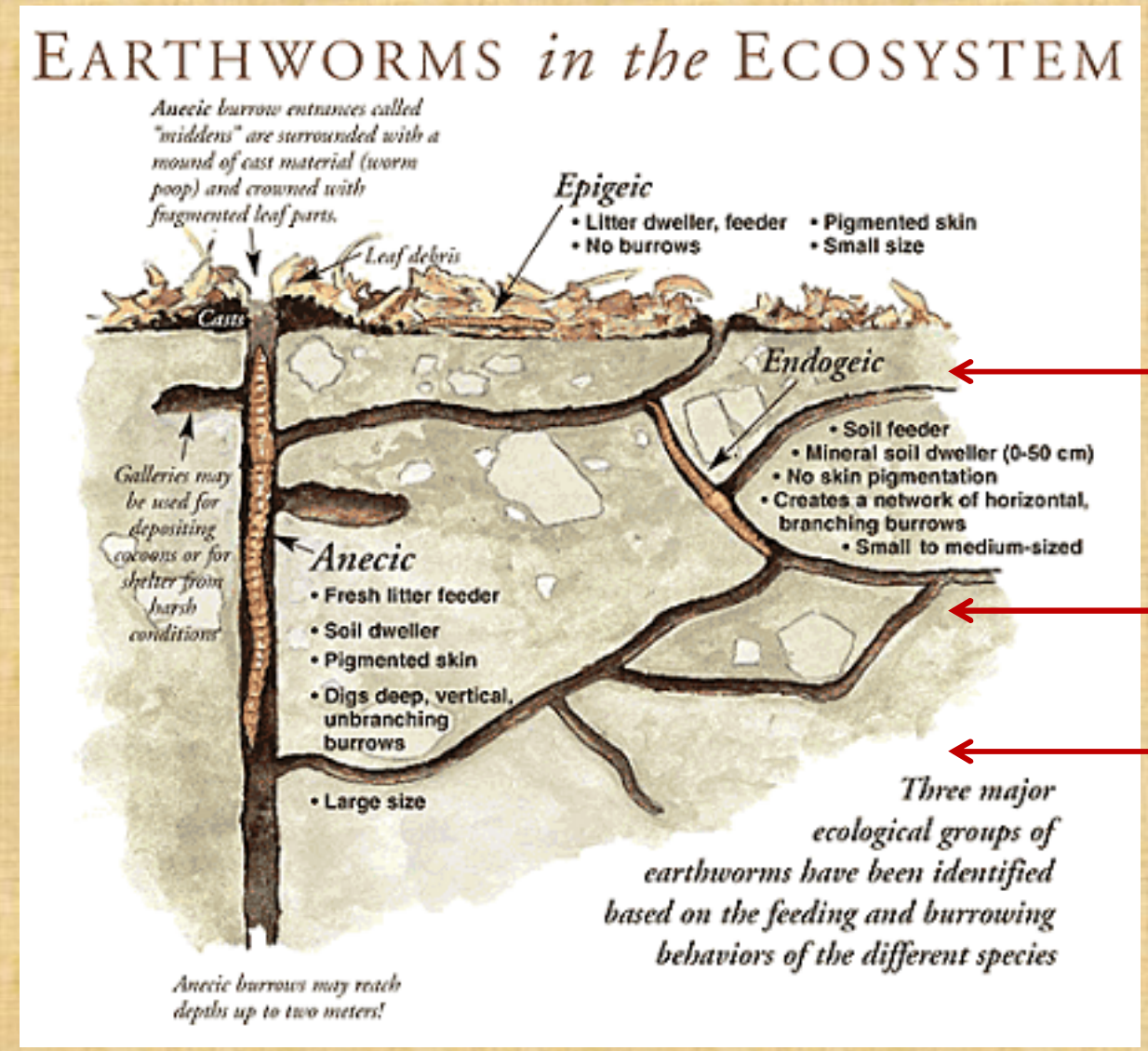
2-5 cm vörös pigmentációjú avarban vagy fakéreg alatt él. Állandó járatokat nem készít

Endogeic - talajlakó

3-20 cm pigmentáció hiányzik a talaj mélyebb rétegeiben él él. Horizontális ideiglenes járatokat készít.

Anecic – mélyben aknázó

15-30 cm intenzív vörös pigmentáció, különösen dorzálisan a test elején. 1-2 m mély permanens vertikális járatokat készít.



Endogeic polyhumic

Endogeic mesohumic

Endogeic oligohumic

„Soil ecosystem engineers"

An **ecosystem engineer** is an organism that modifies, creates or destroys habitat and directly or indirectly modulates the availability of resources to other species, causing physical state changes in biotic or abiotic materials.

Land Degradation Newsletter (Canada)
August 1998, No. 3

LETTER FROM THE EDITOR

…There is no store of learning in greater danger or disappearing than our long-accumulated knowledge of the natural world. We are on the verge of losing our ability to tell one plant or animal from another and of forgetting how species interact with one another and with their environment. In our universities, certain subjects no longer have anyone to teach them, or people teach them on a piecemeal basis from the periphery of the University or outside altogether. …Make no mistake, I am not talking about the preservation of trivia but the safe transmission of existing knowledge. **A worrisome example: Agriculture depends on soil. Soil fertility depends on earthworms and different species play different roles -. In North America, European and Asian species are displacing native species. However, there is no one working on this. There are no graduate students on earthworm taxonomy in US or Canada. ….**