

Vorkommen des Oberen Bruckdorfer Bändertons im Einzugsgebiet der Flüsse Saale, Weiße Elster und Mulde

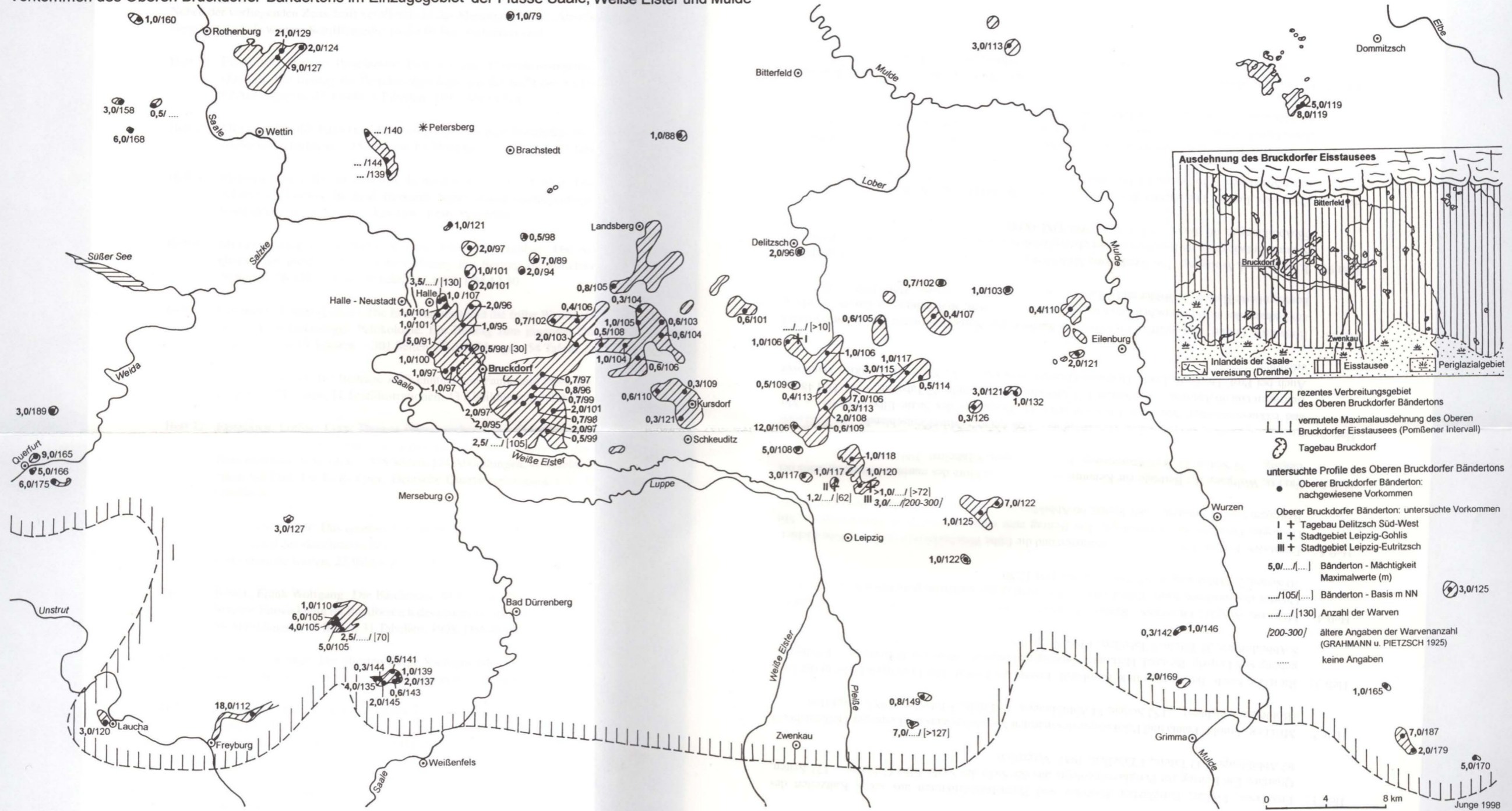


Abb. 1. Verbreitung und Merkmale (Basishöhe, Mächtigkeit, Warvenanzahl) des Oberen Bruckdorfer (Vorstoß-)Bändertons in Mitteldeutschland. Die Zusammenstellung der mit Angaben zur Basishöhe (in Meter über Normalniveau, mNN), zur Mächtigkeit (in Meter) und zur Warvenanzahl versehenen Vorkommen des Oberen Bruckdorfer (Vorstoß-)Bändertons erfolgte unter Verwendung der Lithofazieskarten Quartär 1 : 50 000 (Horizontkarten gS₁-S₂v der Blätter Halle-Nord (2464), Bitterfeld (2465), Eilenburg (2466), Halle Süd (2564), Leipzig (2565) und Wurzen (2566), unter Verwendung von Literaturangaben und eigenen Beobachtungen.

Oberer Bruckdorfer (Vorstoß-) Bänderton
 Stadtgebiet Leipzig Winterlagen
 m NN 117 - 119

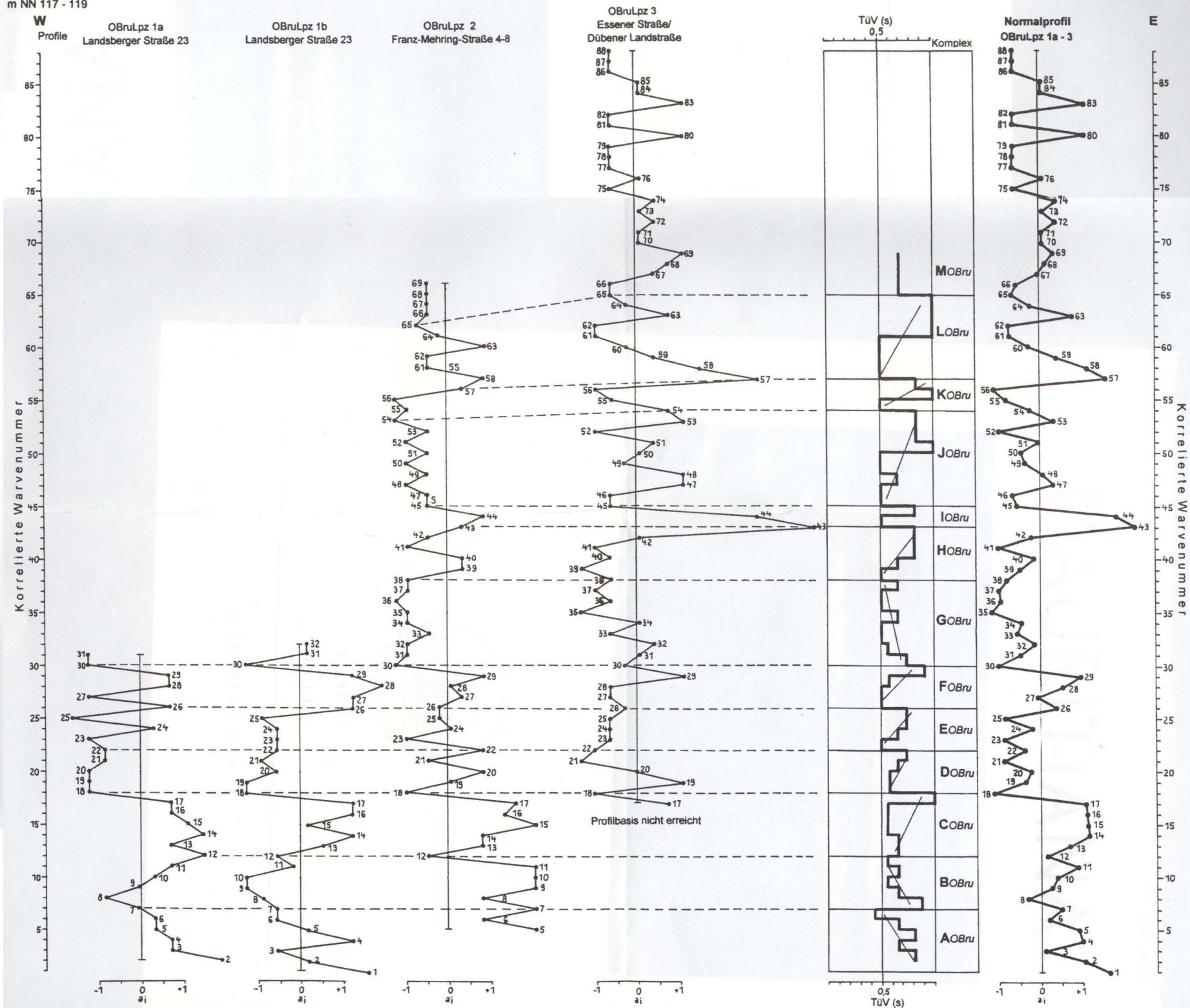


Abb. 2. Konnektierung der tonigen „Winterlagen“ des Oberen Bruckdorfer (Vorstoß-)Bänderton im nördlichen Stadtgebiet von Leipzig. Die Lagenkonnektierung erfolgt auf der Methode nach KÜHL (1991). Die konnektierte West-Ost-Profilstrecke im Stadtgebiet von Leipzig umfaßt ca. 3 Kilometer. Dargestellt sind von links nach rechts: (a.) die lokalsystematischen Mächtigkeitsänderungen a_i der „Winterlagen“ innerhalb der 4 untersuchten Einzelprofile im Stadtgebiet; (b.) Profilverlauf des Trendübereinstimmungskoeffizienten (TüV(s)) als Gradmesser für die Höhe der Übereinstimmung der konnektierten Lagen; (c.) nach dem Profilverlauf des TüV(s) (Trendwechsel) unterschiedene Komplexe; (d.) Normalprofil der lokalsystematischen Mächtigkeitsänderungen a_i der „Winterlagen“ des Oberen Bruckdorfer (Vorstoß-) Bänderton im Stadtgebiet von Leipzig.

Oberer Bruckdorfer (Vorstoß-) Bänderton
 Stadtgebiet Leipzig Sommerlagen
 m NN 117 - 119

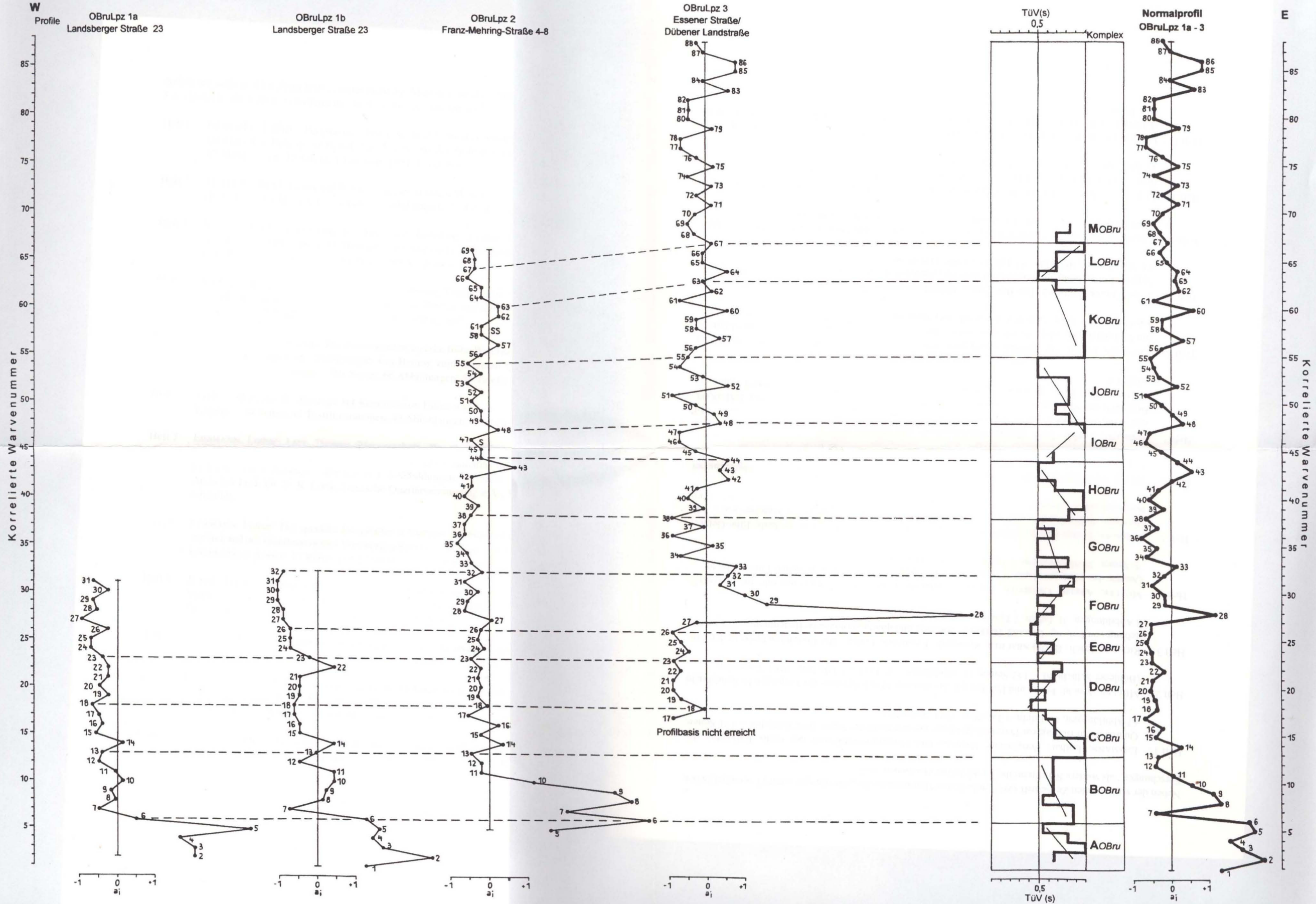


Abb. 3. Konnektierung der schluffigen „Sommerlagen“ des Oberen Bruckdorfer (Vorstoß-)Bändertons im nördlichen Stadtgebiet von Leipzig. Die Lagenkonnektierung erfolgt auf der Methode nach KÜHL (1991). Die konnektierte West-Ost-Profilstrecke im Stadtgebiet von Leipzig umfaßt ca. 3 Kilometer. Dargestellt sind von links nach rechts: (a.) die lokalsystematischen Mächtigkeitsänderungen a_i der „Sommerlagen“ innerhalb der 4 untersuchten Einzelprofile im Stadtgebiet; (b.) Profilverlauf des Trendübereinstimmungskoeffizienten (TüV(s)) als Gradmesser für die Höhe der Übereinstimmung der konnektierten Lagen; (c.) nach dem Profilverlauf des TüV(s) (Trendwechsel) unterschiedene Komplexe; (d.) Normalprofil der lokalsystematischen Mächtigkeitsänderungen a_i der „Sommerlagen“ des Oberen Bruckdorfer (Vorstoß-) Bändertons im Stadtgebiet von Leipzig.

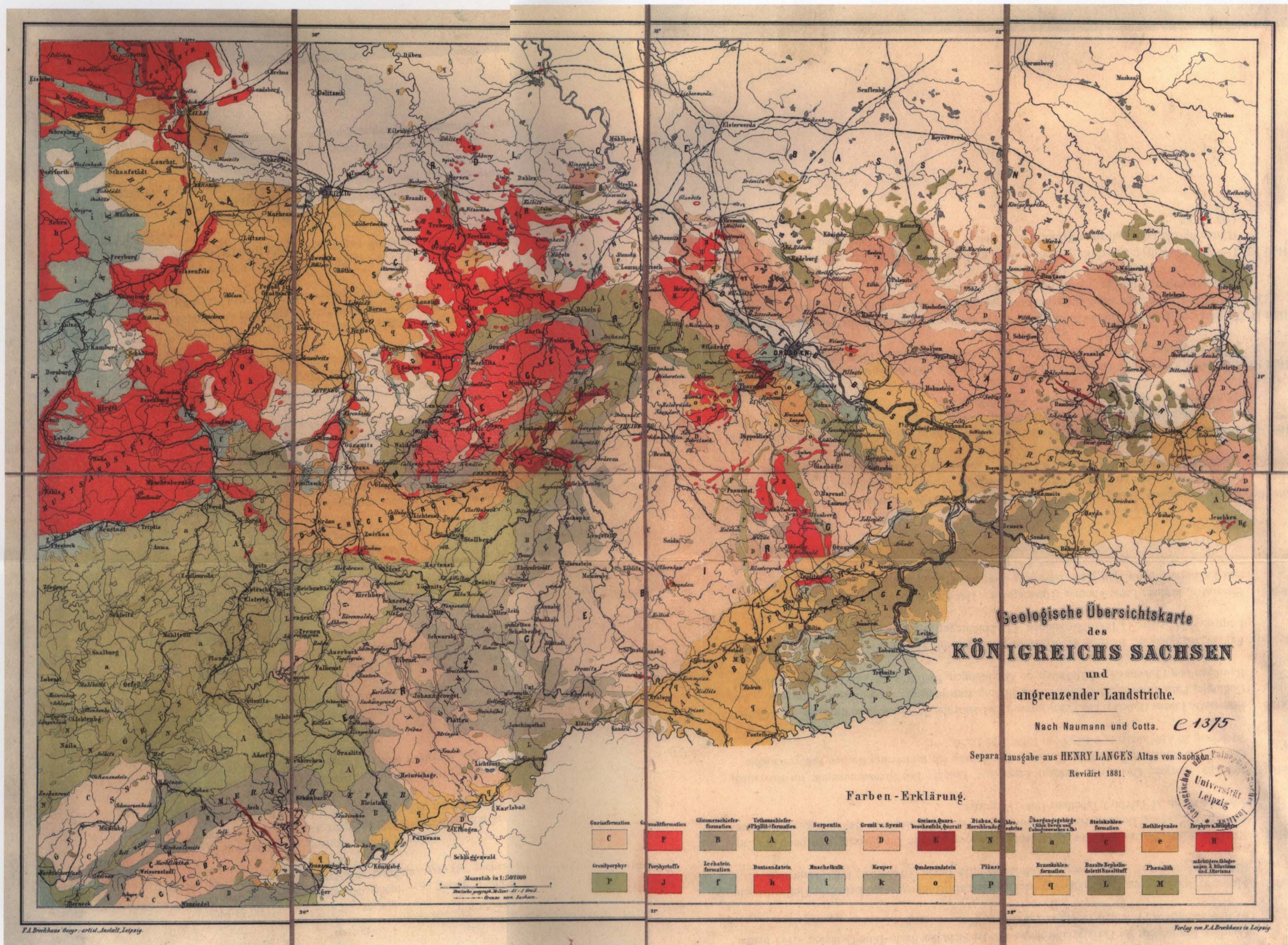
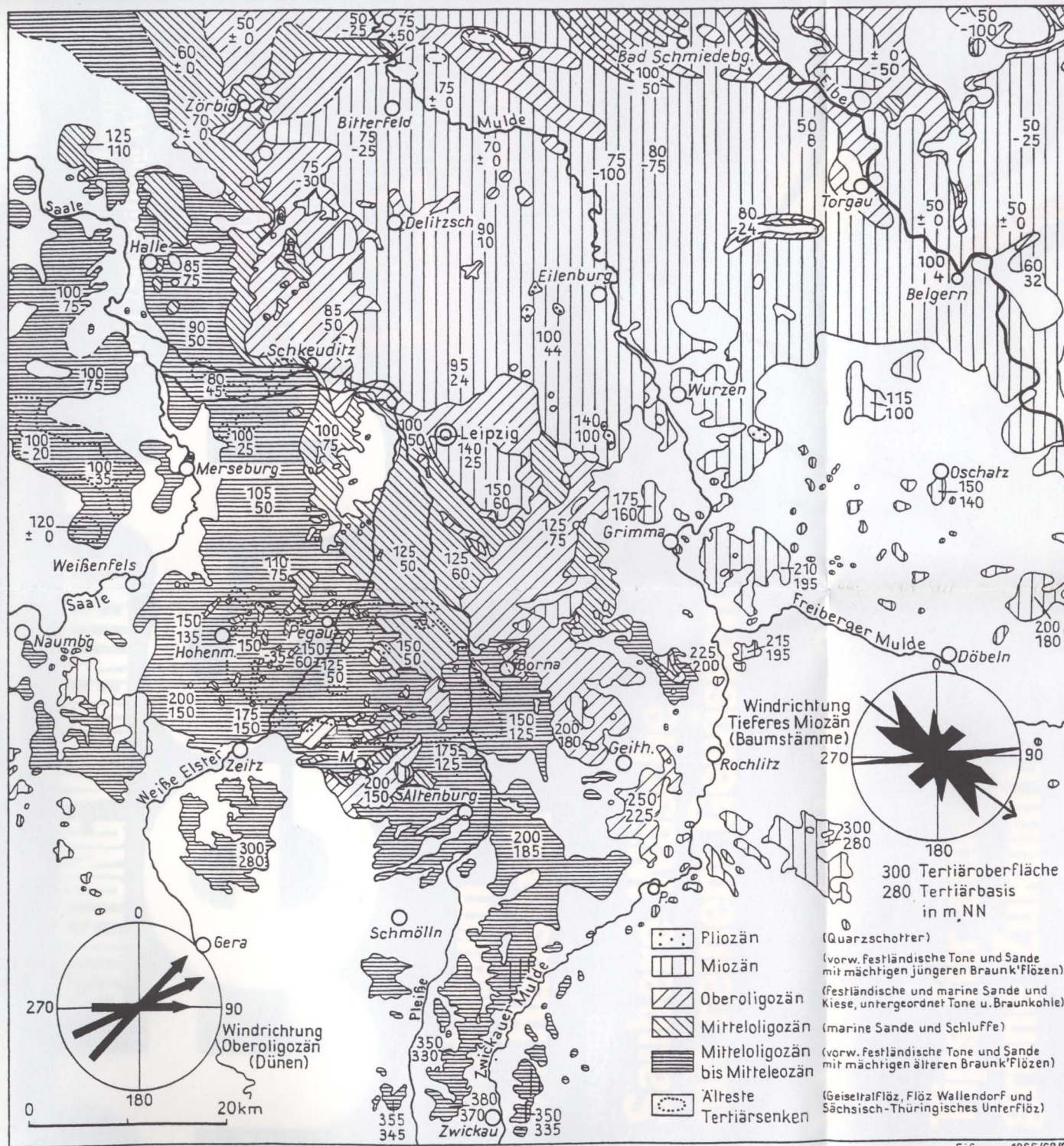
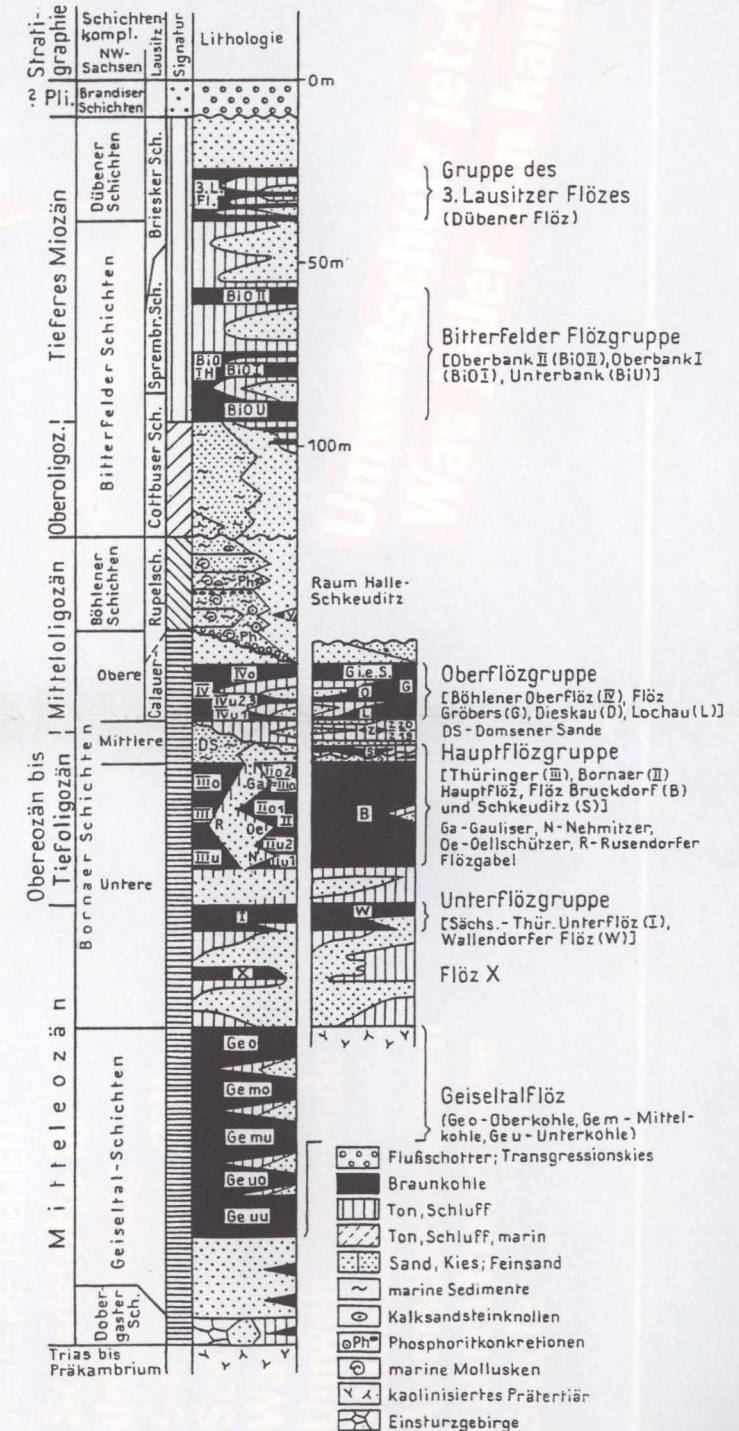


Abb. 4a. Geologische Übersichtskarte des Königreiches Sachsen und angrenzender Landstriche aus HENRY LANGE'S Atlas von Sachsen, 1881, zusammengefaßt nach der Geognostischen Specialcharte des Königreichs Sachsen ... von C. F. NAUMANN und B. v. COTTA, 1835–1845. Nur die größeren, prägenden geologischen Einheiten sind erkannt und dargestellt. Das Tertiär, die Braunkohlenformation, ist nur im groben Umriß südlich von Leipzig bekannt.



Übersichtskarte des Tertiärs



Eißmann 1965/68/95

Abb. 4b. Das Tertiär Nordwestsachsens und des angrenzenden Gebietes in vereinfachter Darstellung in den neunziger Jahren dieses Jahrhunderts. Der größte Fortschritt wurde zwischen 1960 und 1980 erreicht.

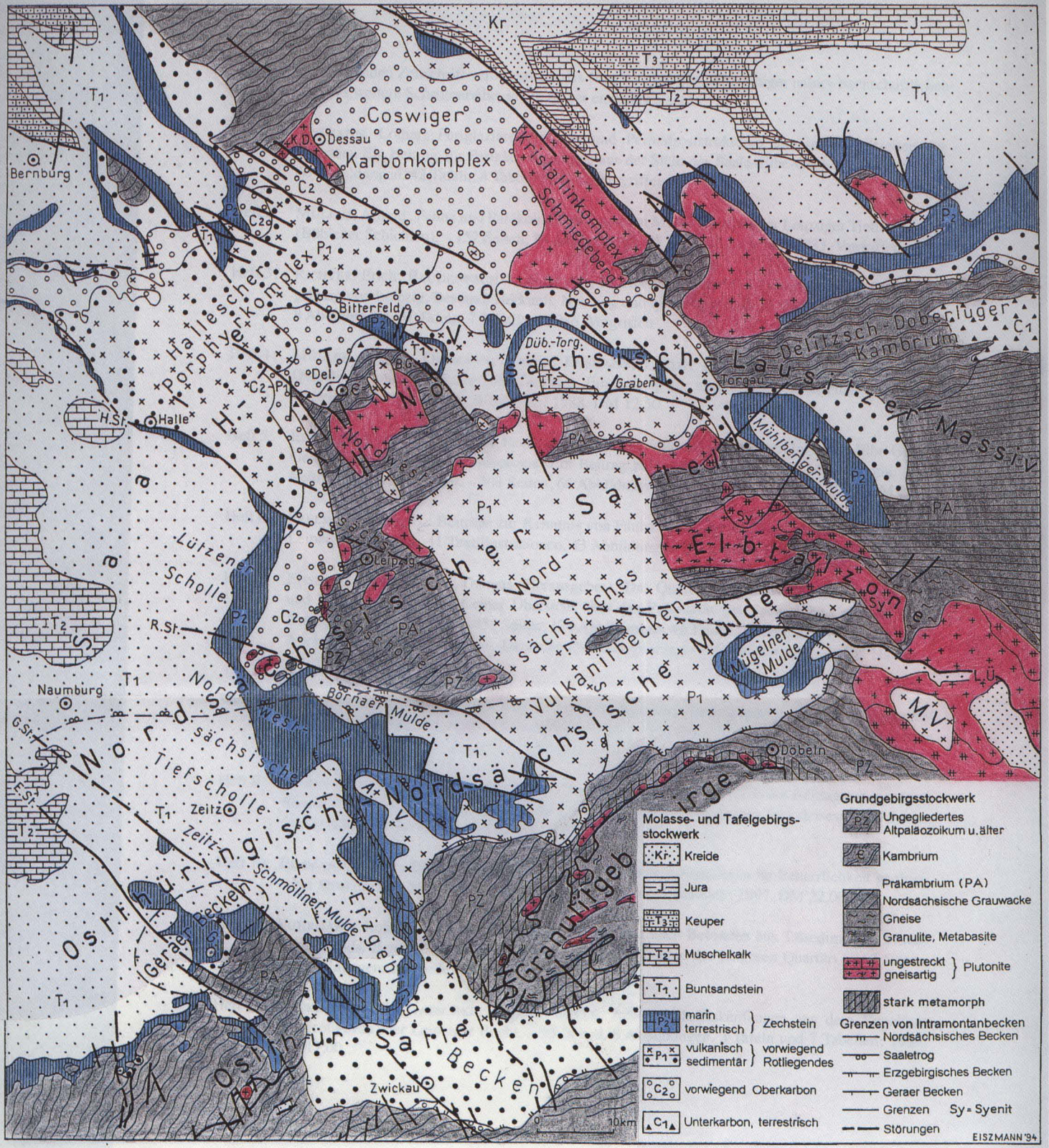


Abb. 4d. Karte des prätertiären Gebirges des westlichen Sachsens und angrenzenden Gebietes in vereinfachter Darstellung aus den 90er Jahren dieses Jahrhunderts.

Mit Hilfe der geophysikalischen Erkundung (Magnetik, Gravimetrie, Geoelektrik), vor allem aber durch zahlreiche Tiefbohrungen und die geologische Aufnahme von tieferen Erkundungsbohrungen auf Braunkohle und Grundwasser bei besonderer Beachtung des petrographischen Ausgangsmaterials des häufig angeschnittenen kaolinischen Zersatzes des prätertiären Gebirges gelang die Darstellung eines verständlichen Bildes von der Ausbildung und geologischen Struktur des tieferen Untergrundes bis mindestens zum Elbebogen bei Wittenberg. Das gilt auch für den Lausitzer Raum. Die 60er und 70er Jahre dieses Jahrhunderts können als der erfolgreichste Abschnitt in der Tilgung der „weißen Flächen“ des sächsischen und angrenzenden Grundgebirges in seiner 150jährigen modernen Forschungsgeschichte bezeichnet werden.

Die Karte veranschaulicht aufs deutlichste die Einheit von sog. Mitteldeutscher Kristallinzone und Saxo-Thüringischer Zone

Abb. 4a–4d. Der Fortschritt in der regionalen Erforschung Sachsens und des angrenzenden Gebietes im Spiegel geologischer Karten aus dem westlichen bis nordwestlichen Bereich

Table 1. Comparison of the main taxonomic characters among the larvae of Prosperini (*Prosperes*), Thrincoypigini (*Thrincoypige*), *Chrysophana*, Polycestini (*Polyctesis*), Tylaucheniini (*Neocypetes*), Tyndarini (*Tyndaris*), Polycestini (*Strigoptera*, *Polycesta*), Ptosimini (*Ptosima*), Acmaeoderini (*Acmaeodera*, *Xanthiermia*, *Acmaeoderella*) and Paratrachyini (*Paratrachys*).

Character	<i>Prosperes</i>	<i>Thrincoypige</i>	<i>Chrysophana</i>	<i>Polyctesis</i>	<i>Neocypetes</i>	<i>Tyndaris</i>	Polycestini	<i>Ptosima</i>	Acmaeoderini	<i>Paratrachys</i>
1. Morpho-ecological type	Buprestoid (Fig. 10)	Buprestoid	Buprestoid	Buprestoid	Buprestoid	Buprestoid	Buprestoid	Buprestoid	Buprestoid	Trachyoid
2. Epistome: sclerotization, colour	Weak, mainly yellowish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish	Normal, mainly brownish
3. Epistome: mandibular condyles	Almost concealed by anterior margin (Fig. 1)	Not concealed	Not concealed	Not concealed	Not concealed	Not concealed	Not concealed	Not concealed	Not concealed	Partly concealed
4. Epistome: epistomal sensillae	4 (2 trichoid, 2 campaniform) (Fig. 1)	4 (2 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	6 (4 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	4 (2 trichoid, 2 campaniform)	(2 campaniform only)
5. Labrum: armature of external surface	With microsetae along whole anterior margin (Fig. 5)	With microsetae along whole anterior margin or glabrous	Glabrous	With microsetae along anterior margin	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous
6. Labrum: palatine sclerite	Median branches poorly developed, isolated from lateral ones (Fig. 5)	Median branches poorly developed, joined to lateral ones	Median branches poorly developed, isolated from lateral ones	Both median and lateral branches well developed, joined at base	Both median and lateral branches well developed, joined at base	Median branches poorly developed, isolated from lateral ones	Median branches poorly developed, joined to lateral ones at base	Both median and lateral branches well developed, joined at base	Both median and lateral branches well developed, joined at base	Both median and lateral branches well developed, parallel to each other
7. Labrum: median sensillae	1 trichoid, 2 campaniform (Fig. 5)	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform	1 trichoid, 3> campaniform	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform	1 trichoid, 2 campaniform
8. Labrum: anterolateral sensillae (Fig. 5)	$1t + 2c + 3t - 4t$ $1c - 2t + 3t + 4t$	$1t + 2c - 3t + 4t$ $1c + 2t + 3t + 4t$	$1t + 2c + 3t - 4t$ $1t + 2t + 3t$	$(1t + 2c) - 3t - 4t$ $1t + 2t + 3t$	$(1c + 2c) + 3t - 4t$ $1t + 2t$	$(1t + 2c) - 3t + 4t$ $1t + 2t$	$(1t + 2c) + 3t - 4t$ $1c + 2c - 3t + 4t$	$(1c + 2c) - 3t - 4t$ $1t + 2t$	$(1c + 2c) + 3t + 4t$ $1t + 2t$	$1c - (2t + 3t) (?)$ $1t + 2t$
9. Antennae: articular membrane	Microspinulate (Fig. 4)	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous
10. Antennae: 1st segment	Elongate (Fig. 4)	As long as wide	Strongly elongate	As long as wide	As long as wide	As long as wide	Slightly transverse	As long as wide	As long as wide	Elongate
11. Antennae: 1st segment: anterior margin	Microspinulate (Fig. 4)	Microspinulate	Glabrous	Microspinulate	Glabrous	Scarcely microspinulate	Glabrous	Glabrous	Glabrous	Glabrous
12. Antennae: 2nd segment: apical cavity	Poorly developed, covered with a disk-like microspinulate extension (Fig. 4)	Developed, microspinulate along anterior margin	Developed, shallow, microspinulate along anterior margin	Developed, deep, microspinulate along anterior margin	Developed, shallow, scarcely microspinulate along anterior margin	Developed, shallow, scarcely microspinulate along anterior margin, microspinulate inside	Developed, deep, scarcely microspinulate along anterior margin, microspinulate inside	Developed, deep, densely microspinulate along anterior margin	Poorly developed, shallow, scarcely microspinulate along anterior margin	Lacking, sensory organs, partly covered with apical projection
13. Mandibles	Elongate, poorly sclerotized, with 5 sharp teeth apically (Figs. 2, 3)	Weakly elongate, strongly sclerotized, with 5 blunt teeth apically	Short, strongly sclerotized with 3 weakly rounded teeth apically	Moderately elongate, strongly sclerotized, with 4 rounded teeth apically	Short, strongly sclerotized, with small apical tooth and 2 ridges at apex	Moderately elongate, strongly sclerotized, with apical tooth and 2 ridges at apex	Short, strongly sclerotized, with small apical tooth and 2 ridges at apex	Weakly elongate, strongly sclerotized, with rounded apical tooth and 2 ridges at apex	Variable in shape, with apical tooth and with 2 pairs of teeth or with 2 ridges at apex	Elongate, evenly sclerotized, with 2 apical teeth and 2 indistinct tubercles
14. Maxillae: cardo: lateral sclerite	Distinct, poorly sclerotized, bearing 2 setae and one campaniform sensilla (Fig. 6)	Distinct, strongly sclerotized, bearing 2 setae and one campaniform sensilla	Distinct, poorly sclerotized, bearing 2 setae and one campaniform sensilla	Distinct, strongly sclerotized, bearing 2 setae and one campaniform sensilla	Lacking, with 2 setae and one campaniform sensilla arising from membrane	Lacking with 2 setae and one campaniform sensilla arising from membrane	Distinct, strongly sclerotized, bearing 2 setae and 2–4 campaniform sensillae	Indistinct, poorly sclerotized, bearing 2 setae and one campaniform sensilla	Lacking, with 2 setae and one campaniform sensilla arising from membrane	Lacking, without any setae or sensillae
15. Maxillae: palpi: 1st segment	Elongate, 1.7 times as long as wide (Fig. 6)	Weakly elongate, approx. 1.3 times as long as wide	Transverse	Transverse	Transverse	Transverse	Transverse	Transverse	Transverse	Elongate
16. Maxillae: mala	Well developed, elongate, without additional projection (Fig. 6)	Well developed, elongate, with long, narrow additional projection	Short, transverse with broad additional projection	Slightly longer than wide, with broad additional projection	Short, transverse, with broad additional projection	As long as wide, with broad additional projection	Strongly reduced, very short, broad, additional projection	Strongly reduced, with very short, broad, additional projection	Strongly reduced, with very short, broad, additional projection	Elongate, narrow, scarcely visible, with broad, additional projection
17. Prementum: shape	Transverse, sharply converging to base (Fig. 7)	Transverse, rectangular	Transverse, sharply converging to base	Rounded, almost as long as wide	Slightly transverse	Rounded, almost as long as wide	Slightly transverse	Rounded, almost as long as wide	Variable, ranging from transverse to rounded	Transverse, rectangular
18. Prementum: armature of external surface	Microspinulate along anterior margin, with additional zones of microspinulae in centre (Fig. 7)	Microspinulate along anterior margin or glabrous, without additional zones of microspinulae	Glabrous	Partly microspinulate along anterior margin, without additional zones of microspinulae	Glabrous	Glabrous	Glabrous	With isolated zones of microspinulae laterally	Glabrous	With triangular zones of microspinulae along anterior margin
19. Postmentum: armature	With 2 long setae (Fig. 7)	With 2 short setae	Glabrous	With 2 long setae	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous	Glabrous
20. Prothoracic plates: armature	Unevenly covered with microteeth and tubercles, with glabrous zones and asperities along grooves (Figs. 8–10)	Unevenly covered with microteeth and tubercles on the sides, central part glabrous with scarce, short bristles	Glabrous, with scarce, short bristles, surface with net-like sculpture	Glabrous, with scarce, short bristles, surrounded by zones of microspinulae; surface with net-like sculpture	Glabrous, with scarce, short bristles, surface with very fine longitudinal rugosity	Glabrous, with scarce, short bristles, surface with very fine longitudinal rugosity	Glabrous, with scarce, short bristles, surface with very fine longitudinal rugosity	Glabrous, with scarce, short bristles, surface with net-like sculpture	Glabrous, with scarce, short bristles, surface with very fine, longitudinal rugosity or net-like sculpture	Evenly sclerotized, yellowish, surrounded by microteeth and glabrous zones
21. Prothoracic grooves	Uniramous on both surfaces, unsclerotized, visible due to surrounding asperities (Figs. 8–10)	Uniramous on both surfaces, sclerotized	Uniramous on both surfaces, unsclerotized, scarcely visible	Uniramous on both surfaces, sclerotized	Uniramous on both surfaces, poorly sclerotized, scarcely visible	Uniramous on both surfaces, pronotal one consisting of 2 parallel sclerotized stripes	Uniramous on both surfaces, sclerotized	Uniramous on both surfaces, sclerotized, with complete median line	Uniramous on both surfaces, sclerotization and shape variable	Pronotal one lacking, prosternal one scarcely visible
22. Meso- and metathorax: armature	Plates covered with microteeth and tubercles, with glabrous zones; sides with bristles (Fig. 10)	Plates covered with microteeth and tubercles, with glabrous zones; sides with bristles	Glabrous, with sparse short bristles on sides	Plates mainly glabrous with zones of microspinulae; sides with bristles	Plates mainly glabrous, metasternum with inconspicuous zones of microspinulae; sides with bristles	Plates mainly glabrous with zones of microspinulae; sides with bristles; mesothorax narrower than metathorax	Glabrous, with dense, long bristles on the sides	Plates mainly glabrous with zones of microspinulae and bristles on the sides	Glabrous, with sparse short bristles on the sides	Covered with granulate sculpture, with glabrous zones and zones of microspinulae
23. Abdomen: 1st segment: ambulatory pads	With longitudinal pad and 2 additional ones on the sides dorsally, and rounded pad with 2 additional ones ventrally (Figs. 10–12)	Poorly developed	Poorly developed	Poorly developed	Poorly developed	Poorly developed	With distinct pad bearing sclerotized structures dorsally and with adjacent sclerotized rings ventrally	Poorly developed	Poorly developed	With 2 pads on both surfaces
24. Abdominal segments: armature	With elongate pads on both surfaces and zones of micro-teeth and spinulae (Fig. 13)	Without distinct pads, with zones of micro-teeth and spinulae	Mainly glabrous, with indistinct zones of inconspicuous microtubercles	Mainly glabrous, with distinct zones of microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae	Mainly glabrous, with indistinct zones of inconspicuous microspinulae
25. Prothoracic spiracles	With cancellate peritreme and numerous inner trabeculae (Fig. 14)	With cancellate peritreme and numerous inner trabeculae or multiloculate	Multiloculate	With cancellate peritreme and numerous inner trabeculae	With cancellate peritreme and numerous inner trabeculae	With poorly developed peritreme and a few inner trabeculae	With cancellate peritreme and numerous inner trabeculae	Multiloculate	With cancellate peritreme and numerous inner trabeculae or multiloculate	1-loculate
26. Abdominal spiracles	With cancellate peritreme, without inner trabeculae (Fig. 15)	With cancellate peritreme, and inner trabeculae or multiloculate	2-3-loculate	With cancellate peritreme, and inner trabeculae	Multiloculate	With poorly developed peritreme and a few inner trabeculae	With cancellate peritreme, and inner trabeculae or 2-3-loculate	3-loculate	1-3- or multiloculate	1-loculate
27. Proventriculus: armature	Main zones with well developed, dense microteeth arising singly from sclerotized tubercles (Fig. 16)	Main zones with well developed, dense microteeth arising singly from sclerotized tubercles	Main zones with well developed, dense microteeth arising singly from sclerotized tubercles	Main zones with well developed, very dense microteeth arising in groups from sclerotized tubercles	Main zones with well developed, dense microteeth arising in groups from sclerotized tubercles	Main zones with well developed, very dense microteeth arising in groups from sclerotized tubercles	Main zones with well developed, very dense microteeth arising in groups from sclerotized tubercles	Main zones with well developed, dense microteeth arising in groups from sclerotized tubercles	Variable, main zones with well developed, dense microteeth arising singly or in groups from sclerotized tubercles	Main zones poorly developed, unsclerotized, consisting of sparse, isolated groups of microteeth arising in groups from tubercles