

## Erratum

**Erratum to: “Palynostratigraphy and vegetation changes during  
 the early Middle Pleistocene, based on new studies of deposits from  
 Ferdynandów (central eastern Poland)”**  
**[Acta Palaeobotanica 55(1): 253–66, 2015]<sup>1</sup>**

IRENA AGNIESZKA PIDEK

Maria Curie-Skłodowska University, Faculty of Earth Sciences and Spatial Management, Kraśnicka 2 c/d,  
 20-718 Lublin, Poland; e-mail: i.pidek@poczta.umcs.lublin.pl

In the above article there was an error in Table 1, page 56 (entries for Fe-15 to Fe-21 were missing). The correct Table 1 is printed below.

The publishers apologise for any inconvenience caused.

**Table 1.** Description of local pollen assemblage zones of the Ferdynandów sequence

L PAZ code	Sample depth (m)	Main features of pollen spectra
<b>Fe-1</b> <i>NAP-Juniperus</i>	Below 44.40	NAP predominates: Poaceae 13.5–18.5%, Cyperaceae 11.0–13.0%, <i>Artemisia</i> 5.5–9.0%, frequent Chenopodiaceae; pollen of <i>Betula nana</i> t. present; <i>Salix</i> pollen values between 3.0 and 5.0%; <i>Juniperus</i> percentages reach their maximum of 14.0%; <i>Pinus sylvestris</i> t. pollen values very low, range 8.0–20.5%; <i>Betula</i> undiff. pollen values 27.0–44.5%; <i>Larix</i> percentages very high, up to 3.6%; <i>Alnus</i> up to 9.5%; <i>Picea</i> up to 2.1%; single pollen grains of <i>Quercus</i> and <i>Ulmus</i> ; frequent pre-Quaternary sporomorphs
<b>Fe-2</b> <i>Betula</i>	44.20–44.30	<i>Betula</i> undiff. pollen values reach 51.5%; <i>Pinus sylvestris</i> t. increases to 38.0%; <i>Larix</i> increases to 1.0%; sporadic <i>Alnus</i> , <i>Quercus</i> , <i>Ulmus</i> , and <i>Fraxinus</i> pollen; frequent <i>Picea</i> , <i>Salix</i> , and <i>Juniperus</i> pollen; NAP percentages decrease distinctly
<b>Fe-3</b> <i>Pinus-Betula-Quercus</i>	44.02–44.10	<i>Pinus sylvestris</i> t. pollen percentages increase to 55.0%, while <i>Betula</i> undiff., <i>Larix</i> , and <i>Piceae</i> percentages decrease; <i>Quercus</i> increases to 2.1%; more frequent pollen grains of <i>Ulmus</i> ; <i>Alnus</i> values begin continuous pollen curve; <i>Salix</i> values low
<b>Fe-4</b> <i>Quercus-Ulmus-Alnus-Corylus</i>	43.40–43.95	<i>Quercus</i> pollen values rise sharply to 30.5% at beginning of zone; clumps of <i>Quercus</i> pollen occur in sample from 43.40 m; in upper samples, oak values 18.5–27.0%; <i>Ulmus</i> values culminate first up to 19.0% and subsequently range from 9.0 to 14.5%; <i>Alnus</i> reaches 12.5%; in upper part of zone, <i>Corylus</i> rises sharply to 24.5%, falls to 3.5%, and rises again to 19.5%; <i>Fraxinus</i> and <i>Tilia</i> pollen frequent, up to ca 1.4% each; pine and birch pollen decrease to very low values; <i>Celtis</i> pollen appears and is more and more frequent; <i>Acer</i> pollen sporadic
<b>Fe-5</b> <i>Corylus</i>	41.80–43.20	<i>Corylus</i> pollen percentages rise rapidly and reach high maximum of 42.5%, then fall to 37%, and clumps of <i>Corylus</i> pollen occur in samples from 42.80 and 42.97 m; <i>Ulmus</i> values 12.0–20.5%; <i>Quercus</i> 11.0–18.0%; <i>Celtis</i> pollen still forms continuous percentage curve; in upper part of zone, <i>Alnus</i> pollen values rise to 21.5% and <i>Tilia</i> pollen reaches maximum at 4.13%; continuous pollen curves of <i>Abies</i> and <i>Taxus</i> begin; sporadic <i>Ligustrum</i> , <i>Vitis</i> , and <i>Viscum</i> ; NAP values very low throughout zone Two subzones distinguished: older, <i>Ulmus-Quercus</i> (samples 42.40–43.20 m); younger, <i>Alnus-Abies-Taxus</i> (samples 41.80–42.32)
<b>Fe-6</b> <i>Abies-Alnus-Quercus</i>	41.50–41.70	Considerable rise of <i>Abies</i> up to 23.0%, followed by distinct rise of <i>Picea</i> up to 13.0%; <i>Quercus</i> and <i>Alnus</i> rise to 21.0% each; <i>Ulmus</i> up to 6.5%; frequent pollen of <i>Fraxinus</i> , <i>Taxus</i> , <i>Acer</i> , and <i>Salix</i> ; values of <i>Corylus</i> decrease to 7.0%; <i>Celtis</i> pollen not as frequent as in previous zone; sporadic <i>Carpinus</i> pollen grains

<sup>1</sup> DOI of original article: 10.1515/acpa-2015-0002

Table 1. Continued

<b>Fe-7</b> <i>Pinus-Betula</i>	40.30–41.40	<i>Pinus sylvestris</i> t. values rise extremely sharply, range 64.5–78.0%; <i>Betula</i> undiff. low, 12.0–24.0%; simultaneous fall in pollen percentages of all thermophilous trees ( <i>Quercus</i> , <i>Fraxinus</i> , <i>Tilia</i> ) and <i>Corylus</i> ; <i>Picea</i> values fall but still significant, up to 5.1% in older part of zone; <i>Larix</i> pollen frequent; <i>Calluna</i> and other Ericaceae sporadic
<b>Fe-8</b> <i>Betula-Larix-NAP</i>	39.82–40.20	Simultaneous rise of <i>Betula</i> undiff. and fall of <i>Pinus sylvestris</i> t.; <i>Larix</i> increases to 5.8%; high values of <i>Betula nana</i> t. and <i>Juniperus</i> , up to 6.5% in upper part of zone; NAP percentages increase, including Poaceae up to 6.3%, Cyperaceae up to 6.0%, <i>Artemisia</i> up to 4.6%, Chenopodiaceae up to 1.4%
<b>Fe-9</b> <i>Picea-Pinus-Quercus</i>	39.55–39.70	Distinct increase of <i>Picea</i> up to 6.5%; <i>Quercus</i> up to 15.5%; <i>Ulmus</i> up to 4.1%; <i>Tilia</i> reaches 0.9% and <i>Fraxinus</i> reaches 0.6%; <i>Betula</i> undiff. increases to 36.5%; <i>B. nana</i> t., <i>Juniperus</i> , and NAP fall; <i>Artemisia</i> pollen percentages also decrease significantly
<b>Fe-10</b> <i>Artemisia-Poaceae-Cyperaceae</i>	39.22–39.45	<i>Pinus sylvestris</i> t. values increase to 49.0%; <i>Picea</i> still high, up to 6.5%; NAP values increase, including Cyperaceae up to 6.0%, Poaceae up to 10.0%, <i>Artemisia</i> up to 12.5%, Chenopodiaceae 0.6%; frequent pollen of Ericaceae; increase of <i>Betula nana</i> t. up to 2.9%; distinct fall of pollen of all thermophilous trees in comparison to previous zone
<b>Fe-11</b> <i>Betula-Pinus</i>	39.00–39.15	Pine pollen percentages increase to 54.5%; tree birch increases to 44.0%; still frequent <i>Larix</i> and <i>Picea</i> pollen; sporadic pollen of thermophilous trees; decrease in <i>Betula nana</i> t. and <i>Juniperus</i> ; distinct fall in NAP values of NAP, including <i>Artemisia</i> , Poaceae, and Cyperaceae (less than 1% each)
<b>Fe-12</b> <i>Pinus-Betula-NAP</i>	38.55–38.90	<i>Pinus sylvestris</i> t. falls distinctly; <i>Picea</i> pollen percentages still high; <i>Salix</i> reaches 4.0% and <i>Juniperus</i> reaches 8.5%; NAP values increase considerably again, including Cyperaceae up to 9.0%, Poaceae up to 11.5%, <i>Artemisia</i> up to 5.0%, Chenopodiaceae up to 1.1%; frequent pollen of Ericaceae Two subzones distinguished: older, <i>Pinus</i> ; younger, <i>Juniperus-Salix</i>
<b>Fe-13</b> <i>Betula-Artemisia</i>	38.30–38.50	NAP percentages high, including Poaceae 4.8–10.5%, Cyperaceae 2.2–8.0%, <i>Artemisia</i> up to 8.5%; Chenopodiaceae pollen frequent, up to 1.1%. <i>Betula</i> undiff. increases slightly to 51.0%; <i>Pinus sylvestris</i> t. falls to 33.0%; single pollen grains of <i>Ulmus</i> , <i>Quercus</i> , <i>Picea</i> , and <i>Alnus</i>
<b>Fe-14</b> <i>Pinus</i>	38.12–38.20	<i>Pinus sylvestris</i> t. 51.0–55.0%; <i>Betula</i> undiff. 26.0–33.5%; single pollen grains of <i>Picea</i> and <i>Alnus</i> ; <i>Quercus</i> and <i>Ulmus</i> pollen curves begin; NAP values decrease, including Cyperaceae down to 2.5%, but still-high percentages of Poaceae (up to 6.5%) and <i>Artemisia</i> (up to 4.8%); <i>Salix</i> , <i>Juniperus</i> , and <i>Betula nana</i> t. pollen values fall
<b>Fe-15</b> <i>Pinus-Ulmus-Quercus</i>	38.02–38.10	<i>Pinus sylvestris</i> t. 68.5–80.0%; <i>Betula</i> undiff. falls to 12.5%; frequent pollen of <i>Ulmus</i> (up to 3.5%) and <i>Quercus</i> (up to 9.5%); <i>Carpinus</i> pollen values form continuous curve; <i>Alnus</i> curve appears in younger part of zone; <i>Corylus</i> percentages not distinct but form continuous pollen curve up to 0.4%; <i>Tilia</i> values up to 0.8%
<b>Fe-16</b> <i>Carpinus-Alnus-Corylus</i>	37.87–38.00	Distinct rise of <i>Carpinus</i> pollen values (from 0.6% to 36.5%) is the most characteristic feature of this zone, occurring simultaneously with the fall in <i>Pinus sylvestris</i> t. values from 62.0% to 11.5%; <i>Betula</i> undiff. falls from 9.5% to 5.4%; simultaneous increase of <i>Alnus</i> from 6.4% to 29.5%; <i>Ulmus</i> rises, 1.7–4.4%; <i>Quercus</i> 4.6–10.5%, with clumps of <i>Carpinus</i> and <i>Quercus</i> pollen occurring in sample from 37.90 m; <i>Corylus</i> 2.0%–7.5%; <i>Abies</i> pollen appears in younger part of zone and is more frequent (up to 1.1% in upper part of zone); NAP percentages minimal, including less than 1.0% Poaceae and Cyperaceae
<b>Fe-17</b> <i>Pinus-Picea</i>	37.75–37.82	Rapid increase of <i>Pinus sylvestris</i> t. pollen values up to 84.0%; <i>Picea</i> percentages increase to 8.5%; <i>Abies</i> increasing to 2.3% but only in older part of zone; <i>Taxus</i> pollen appears in sample of <i>Picea</i> maximum, simultaneously with fall of <i>Alnus</i> , <i>Carpinus</i> , <i>Quercus</i> and <i>Ulmus</i> percentages; <i>Betula</i> undiff. low, up to 10.5%; <i>Corylus</i> falls, especially towards younger part of zone
<b>Fe-18</b> <i>Pinus</i>	37.57–37.70	Very high pine pollen values, 90.5–97.0%; <i>Betula</i> undiff. very low, 1.0–4.2%; <i>Picea</i> pollen frequent, up to 2.0%; sporadic pollen grains of <i>Quercus</i> , <i>Ulmus</i> , <i>Alnus</i> , and <i>Larix</i> ; among NAP, Cyperaceae pollen most frequent, up to 2.6%; Poaceae pollen less than 1.0%; sporadic pollen of <i>Calluna</i> , <i>Vaccinium</i> t.
<b>Fe-19</b> <i>Betula-Poaceae-Cyperaceae</i>	37.37–37.55	NAP percentages increase distinctly, including Poaceae up to 12.5%, Cyperaceae up to 10.5%, <i>Artemisia</i> up to 3.7%; <i>Betula nana</i> t. pollen more frequent; distinct fall of pine pollen to 30.5–52.0%; simultaneous rise of <i>Betula</i> undiff. to 32.0%; continuous pollen curve of <i>Larix</i> appears, reaching 0.9%; <i>Picea</i> pollen increases to 1.4%; quite frequent pollen of <i>Quercus</i> , <i>Ulmus</i> , and <i>Alnus</i> ; <i>Salix</i> and <i>Juniperus</i> form continuous curves; frequent pollen of Ericaceae
<b>Fe-20</b> <i>Pinus-NAP</i>	36.80–37.32	<i>Pinus sylvestris</i> t. and <i>Betula</i> undiff. values similar to previous zone; <i>Larix</i> increases to 1.9%; <i>Picea</i> increases to 2.7%; sporadic pollen grains of <i>Pinus cembra</i> t., <i>Quercus</i> , <i>Ulmus</i> , and <i>Carpinus</i> ; <i>Alnus</i> pollen more frequent in upper part of zone and contains pollen of <i>A. viridis</i> ; <i>Juniperus</i> pollen forms continuous curve; <i>Betula nana</i> t. pollen more frequent, up to 3.2%; frequent pollen grains of Ericaceae; pollen of Chenopodiaceae also frequent; <i>Artemisia</i> pollen values rise up to 9.5%
<b>Fe-21</b> <i>Pinus</i>	from 36.60 upwards	<i>Pinus sylvestris</i> t. pollen values increase to 80.0% and predominate pollen spectra; <i>Betula</i> undiff. decreases to 8.0%; NAP percentages fall distinctly, including Poaceae and Cyperaceae down to ca 4% each; <i>Artemisia</i> and Poaceae both 0.3–0.4%