

## Plate 1

Illustrated specimens are housed in the Institute of Geological Sciences (IGS) of the Ukrainian National Academy of Sciences (UNAS), Kiev, Ukraine.

Figs. 1-2. *Rhachistognathus minutus declinatus* Baesemann & Lane, 1985  
Bezmyannaya gully, lst. D<sub>5</sub><sup>9</sup>, lowermost Bashkirian, × 60; 1: IGSU-232-1; 2: IGSU-232-3.

Fig. 3. *Cavusgnathus? unicornis* Youngquist & Miller, 1949  
IGSU-1691-4 (TS-1), Zhelvakovaya gully, lst. D<sub>5</sub><sup>8</sup>upper, lowermost Bashkirian, × 70.

Fig. 4. *Adetognathus lautus* Gunnell, 1933  
IGSU-1408-5, Zhelvakovaya gully, lst. D<sub>5</sub><sup>9</sup>, lowermost Bashkirian, × 60.

Fig. 5. *Gnathodus postbilineatus* Nigmatganov & Nemirovskaya, 1993  
IGSU-1652-1, Zhelvakovaya gully, lst. D<sub>5</sub><sup>7</sup>, uppermost Serpukhovian, × 80.

Fig. 6. *Lochria ziegleri* Nemirovskaya, Perret & Meischner, 1994  
IGSU-1707-1, Zhelvakovaya gully, lst. D<sub>5</sub><sup>7</sup>, uppermost Serpukhovian, × 80.

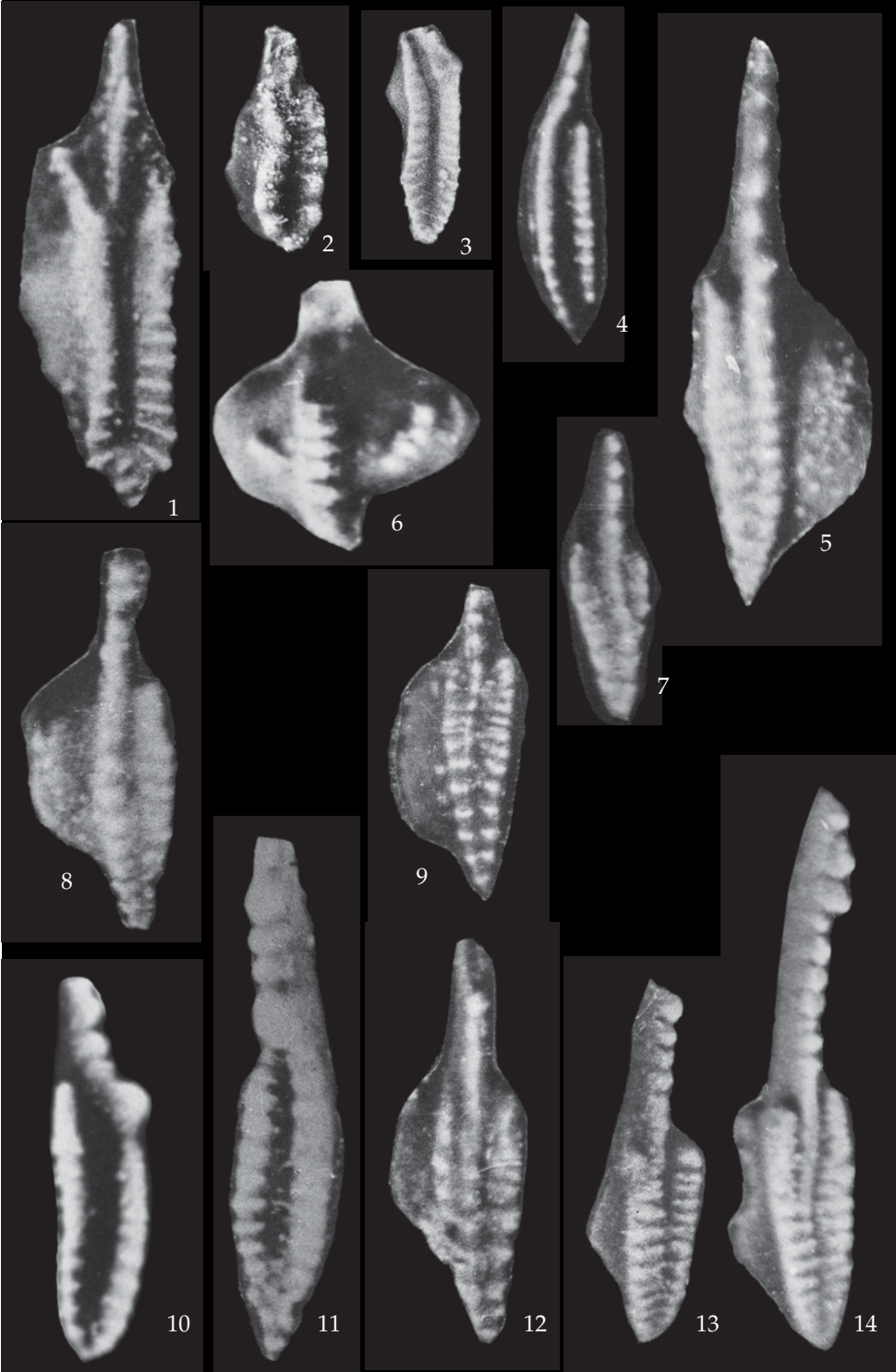
Figs. 7, 9, 12. *Declinognathodus noduliferus inaequalis* (Higgins, 1975)  
7: IGSU-1642-1, lst. D<sub>5</sub><sup>8</sup>lower; 9: IGSU-232-2, lst. D<sub>5</sub><sup>9</sup>; 12: IGSU-1651-1, lst. D<sub>5</sub><sup>10</sup>; all from the Zhelvakovaya gully, Lower/Middle Carboniferous boundary deposits, × 75.

Fig. 8. *Gnathodus bilineatus bollandensis* Higgins & Bouckaert, 1968  
IGSU-1691-TS3, Zhelvakovaya gully, lst. D<sub>5</sub><sup>8</sup>lower, uppermost Serpukhovian, × 75.

Fig. 11. *Adetognathus unicornis* (Rexroad & Burton, 1964)  
IGSU-1043-1, Zhelvakovaya gully, lst. D<sub>5</sub><sup>6</sup>, Upper Serpukhovian, × 70.

Fig. 10. *Adetognathus gigantus* (Gunnell, 1933)  
IGSU-1408-1, Zhelvakovaya gully, lst. D<sub>5</sub><sup>9</sup>, lowermost Bashkirian, × 75.

Figs. 13-14. *Declinognathodus lateralis* (Higgins & Bouckaert, 1968)  
Zhelvakovaya gully, lst. D<sub>5</sub><sup>10</sup>, Lower Bashkirian, × 75; 17: IGSU-1078-2; 18: IGSU-1651-2.



## Plate 2

Illustrated specimens are housed in IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1, 4. *Declinognathodus noduliferus japonicus* (Igo & Koike, 1964)

1: IGSU-1402-2, Bezmyannaya gully (near the road to Fenino village), lst. D<sub>7</sub><sup>7</sup>, Lower Bashkirian,  $\times 60$ ; 4: IGSU-1164-1, Bezmyannaya gully, lst. D<sub>7</sub><sup>2</sup>, Lower Bashkirian,  $\times 60$ .

Figs. 2, 8, 11-12, 17. *Declinognathodus marginodosus* (Grayson, 1984)

2: IGSU-68/2032, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 8: IGSU-26, Zolotaya Valley, lst. K<sub>3</sub>, basal Moscovian; 11-12: IGSU-597-a/5 and a/6, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 17: IGSU-62, same loc., lst. K<sub>1</sub>, uppermost Bashkirian.

Figs. 3, 6, 10. *Declinognathodus noduliferus noduliferus* (Ellison & Graves, 1941)

3: IGSU-1394-1, Rudnya-Zatsepa gully, lst. G<sub>1</sub><sup>1</sup>, Upper Bashkirian; 6: IGSU-1640-1, Belovodsk district, borehole 91-B, depth 314-316.5 m, lst. H<sub>5</sub><sup>1</sup>, Upper Bashkirian, specimen transitional to *Decl. Marginodosus*; 10: same loc. and lst. as fig. 3.

Figs. 5, 13. *Declinognathodus lateralis* (Higgins & Bouckaert, 1968)

5: IGSU-1417-6, Fenino Village, lst. E<sub>1</sub><sup>V</sup>, Lower Bashkirian,  $\times 60$ ; 13: IGSU-283-1, Kryvenky Yar gully, lst. F<sub>1</sub><sup>2</sup>, Lower Bashkirian.

Figs. 7, 9, 14. *Declinognathodus donetzius* Nemirovskaya, 1990

7: IGSU-597-a/1, holotype,  $\times 60$ , Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 9: IGSU-597-a/2, same loc. and lst.; 14: IGSU-597-a/3, same loc. and lst.

Figs. 15-16. *Declinognathodus pseudolateralis* sp. nov.

Borehole Dobropolskaya 9831, depth 200.3-200.6 m, lst. G<sub>1</sub><sup>1</sup>, Upper Bashkirian,  $\times 80$ ; 15: IGSU-661-1; 16: IGSU-661-2, holotype.



### Plate 3

Illustrated specimens are housed in IGSU, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1, 5, 7, 12, 15, 17. *Idiognathoides sulcatus sulcatus* Higgins & Bouckaert, 1968

1: IGSU-1400-2, Bezymyannaya gully (near the road to Fenino Village), lst. D<sub>7</sub><sup>7</sup>, Lower Bashkirian; 5: IGSU-200-1, Gluboky Yarok, lst. D<sub>7</sub><sup>7</sup>, Lower Bashkirian; 7: IGSU-1491-1, specimen transitional to *Id. sulcatus parvus*, Rudnya-Zatsepa gully, lst. G<sub>3</sub><sup>1</sup>, Upper Bashkirian,  $\times 80$ ; 12: IGSU-1532-1(1572), watershed between Rudnya and Zatsepa gullies, lst. G<sub>1</sub><sup>1</sup>, Upper Bashkirian,  $\times 80$ ; 15: IGSU-68/2050, Kryvenky Yar, lst. F<sub>1</sub><sup>2</sup>, Lower Bashkirian; 17: IGSU-281-1, same loc. and lst. as fig. 12.

Figs. 2, 4, 21. *Idiognathoides corrugatus* (Harris & Hollingsworth, 1933)

2, 4: IGSU-381-2 and IGSU-1401-1, respectively, Fenino Village, Tchorna Skelya, lst. E<sub>1</sub><sup>5</sup>, Lower Bashkirian,  $\times 60$ ; 21: IGSU-1390-1, Sorochnya gully, lst. H<sub>4</sub>, Upper Bashkirian,  $\times 80$ .

Figs. 3, 8, 10, 13. *Idiognathoides sinuatus* Harris & Hollingsworth, 1933

3: IGSU-1351-1, Popovaya gully, lst. D<sub>7</sub><sup>7</sup>, Lower Bashkirian; 8: IGSU-322-1,  $\times 80$ , Kryvenky Yarok, lst. F<sub>1</sub><sup>2</sup>, Lower Bashkirian; 10: IGSU-263-1, Zolotaya Valley, lst. K<sub>1</sub>, uppermost Bashkirian; 13: IGSU-322-2, same loc. and lst. as fig. 8.

Figs. 6, 16. *Idiognathoides sulcatus parvus* Higgins & Bouckaert, 1968

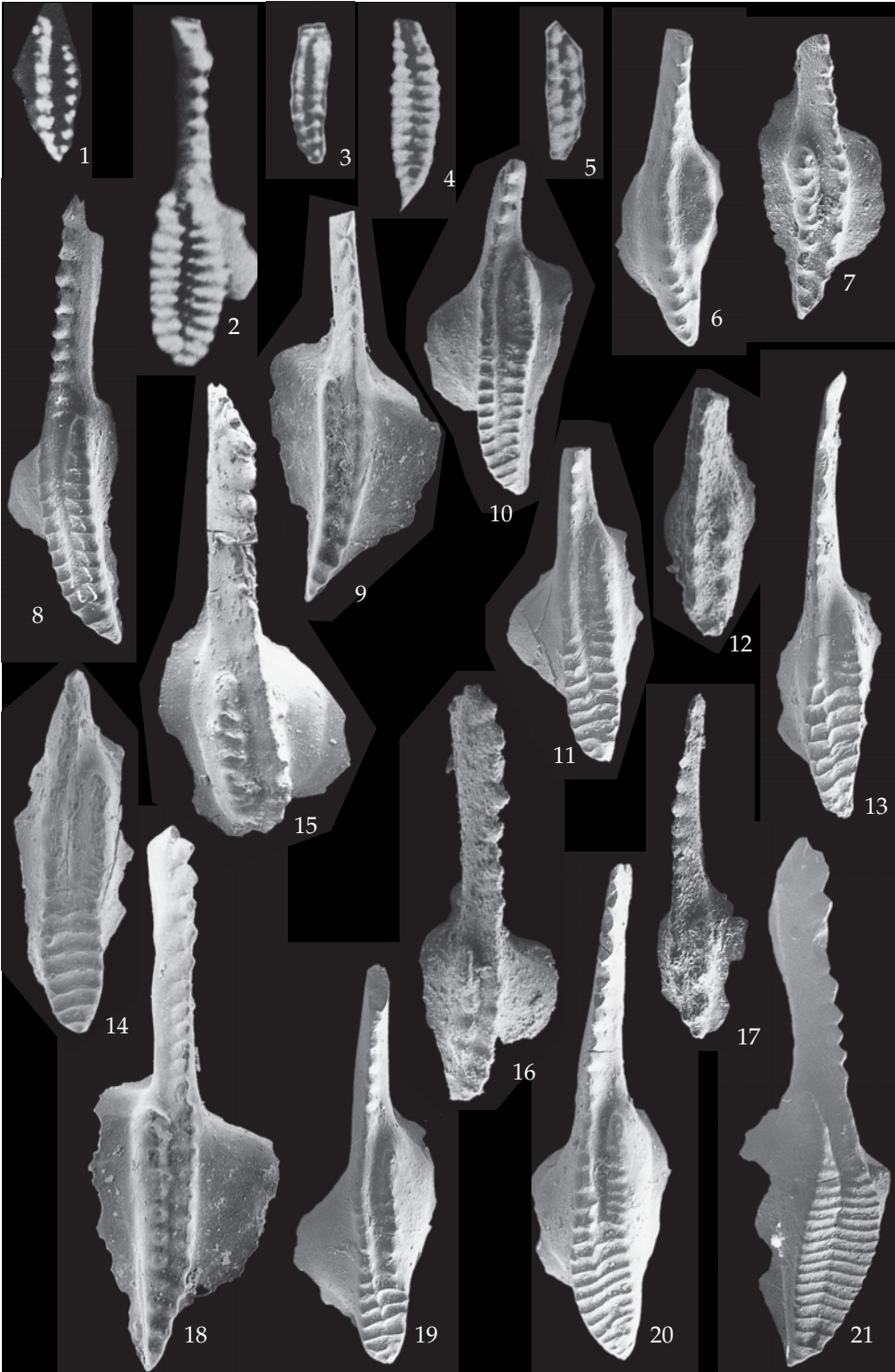
6: IGSU-1391-1, Gruzskaya gully, lst. F<sub>2</sub>lower, Lower Bashkirian; 16: IGSU-1495-1, Rudnya-Zatsepa gullies watershed, lst. G<sub>3</sub><sup>3</sup>, Upper Bashkirian,  $\times 75$ .

Figs. 9, 18. *Idiognathoides postsulcatus* sp. nov.

9: IGSU-Pash-2, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 18: IGSU-Pash-1, holotype, same loc. and lst.

Figs. 11, 14, 19-20. *Idiognathoides lanei* Nemyrovskaya, 1978

11: IGSU-1483-2, Volnukhino Village, lst. H<sub>5</sub>, Upper Bashkirian,  $\times 75$ ; 14: IGSU-68/2042, holotype, Kryvenky Yar, lst. F<sub>1</sub><sup>2</sup>, Upper Bashkirian,  $\times 75$ ; 19: IGSU-281-2, watershed between the Rudnya and Zatsepa gullies, lst. G<sub>1</sub>, Upper Bashkirian; 20: IGSU-1390-3, Sorochnya gully, lst. H<sub>4</sub>, Upper Bashkirian.



#### Plate 4

Illustrated specimens are housed in the IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1, 3-5, 11. *Idiognathoides fossatus* (Branson & Mehl, 1941)

1: IGSU-264-1, Zolotaya Valley, lst. I<sub>4</sub>, Upper Bashkirian; 3: IGSU-267-1, specimen transitional between *Id. corrugatus* and *Id. fossatus*, Zolotaya Valley, lst. I<sub>2</sub><sup>1</sup>, Upper Bashkirian; 4: IGSU-273-1, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian,  $\times 80$ ; 5: IGSU-1390-4, Sorochnya gully, lst. H<sub>4</sub>, Upper Bashkirian; 11: IGSU-267-2, same loc. and lst. as fig. 1.

Fig. 2. *Declinognathodus?* aff. *pseudolateralis* sp. nov.

IGSU-66, Dobropolskaya borehole 9831, depth 200.3-200.6 m, lst. G<sub>1</sub><sup>1</sup>, specimen transitional between *Decl. pseudolateralis* and *Idiognathodus* sp., Upper Bashkirian.

Figs. 6, 9-10, 12-13. *Idiognathoides tuberculatus* Nemirovskaya, 1978

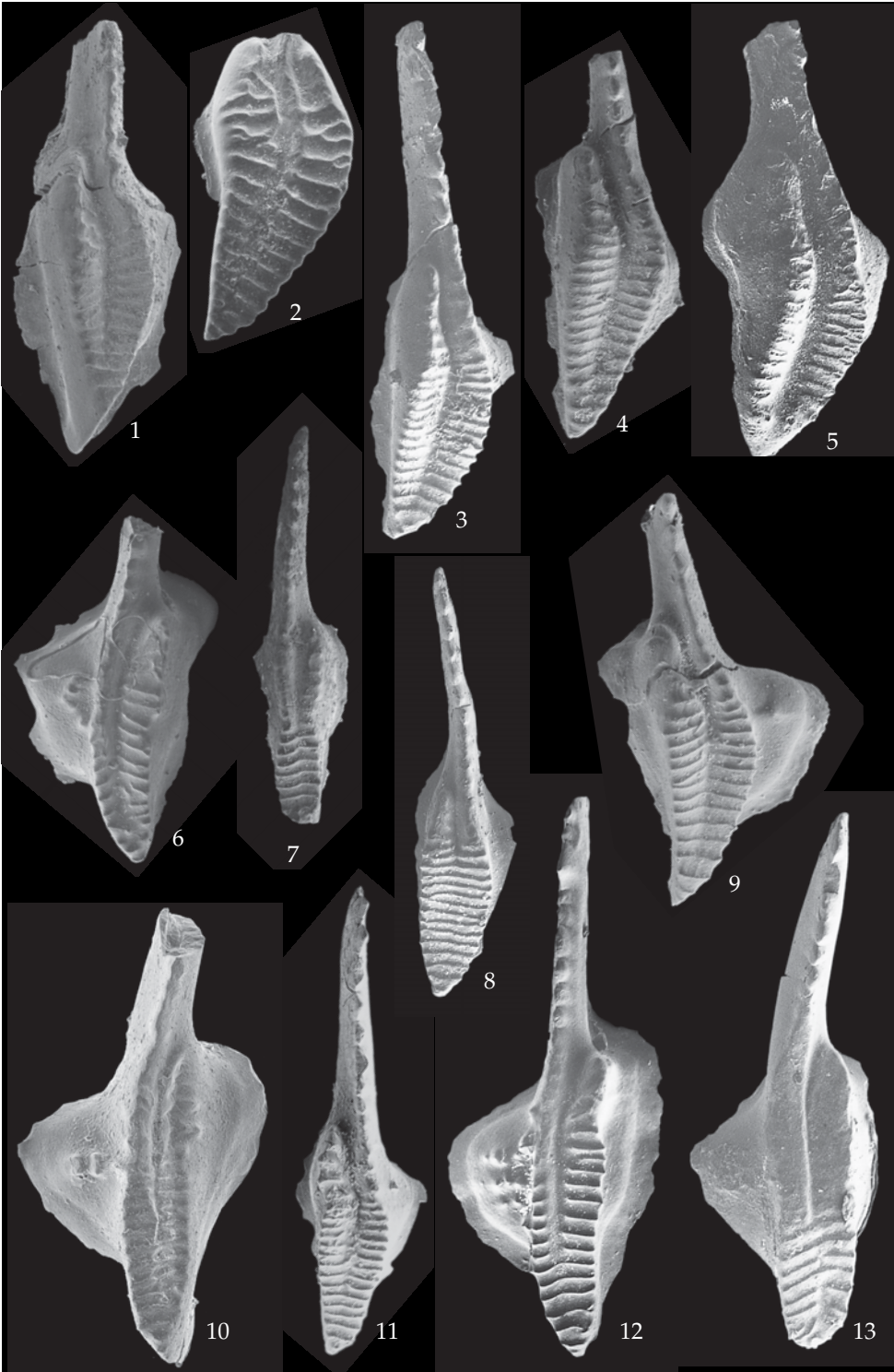
6, 9: IGSU-273-2 and 273-3, respectively, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 10: 68/2044, holotype, Dolgy Valley, lst. H<sub>5</sub>, Upper Bashkirian,  $\times 75$ ; 12: IGSU-597-a/7, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 13: IGSU-1390-5, Sorochnya gully, lst. H<sub>4</sub>, Upper Bashkirian.

Fig. 7. *Idiognathoides lanei* Nemirovskaya, 1978

IGSU-281-3, watershed between the Rudnya and Zatsepa gullies, lst. G<sub>1</sub>, the base of Upper Bashkirian.

Fig. 8. *Idiognathoides corrugatus* (Harris & Hollingsworth, 1933)

IGSU-322-3, Kryvenky Yar, lst. F<sub>1</sub><sup>2</sup>, Lower Bashkirian,  $\times 60$ .





## Plate 5

Illustrated specimens are housed in the IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ .

Figs. 1-9, 11, 13-14. *Neognathodus symmetricus* Lane, 1967

1: IGSU-1483-3, Volnukhino Village, lst. H<sub>3</sub>, Upper Bashkirian; 2: IGSU-1483-4, same loc. and lst.; 3: IGSU-1483-5, same loc. and lst.; 4: IGSU-174, the same loc., lst. F<sub>2</sub>, Lower Bashkirian; 5: IGSU-1469-1, Sorochya gully, lst. H<sub>5</sub>, Upper Bashkirian; 6: IGSU-1483-6, same loc. and lst. as fig. 1; 7: IGSU-1483-7, same loc. and lst.; 8: IGSU-1495-2, Rudnya gully, lst. G<sub>3</sub><sup>3</sup>, Upper Bashkirian; 9: IGSU-1483-12, same loc. and lst. as fig. 1; 11: IGSU-1483-8, same loc. and lst.; 13: IGSU-1483-9, same loc. and lst.; 14: IGSU-1483-10 (juvenile), same loc. and lst.

Fig. 10. *Neognathodus askynensis* Nemirovskaya & Alekseev, 1993  
IGSU-1351-2, Shyrokaya gully, lst. E<sub>6</sub>, Lower Bashkirian.

Fig. 12. *Neognathodus kanumai* Igo, 1974  
IGSU-1534-1, Zolotaya Valley, lst. I<sub>2</sub><sup>1</sup>, Upper Bashkirian.

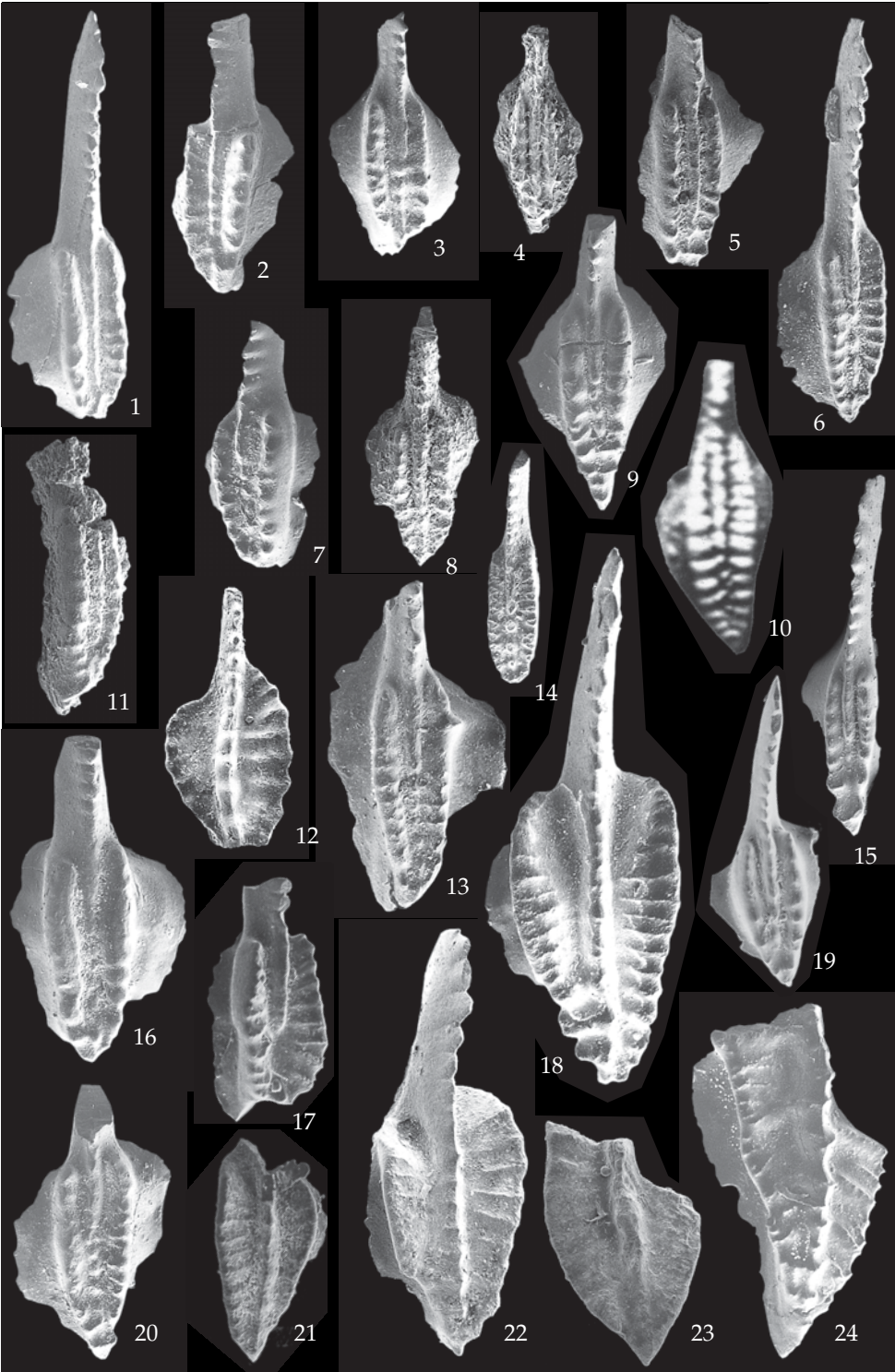
Figs. 15-17, 19-20. *Neognathodus* sp. 1

15: IGSU-0129, Tereshkovskaya borehole 11593, depth 212.43-215.55 m, lst. G<sub>3</sub><sup>1</sup>, Upper Bashkirian; 16: IGSU-1483-11, Volnukhino Village, lst. H<sub>3</sub>, Upper Bashkirian; 17: IGSU-0131, Tereshkovskaya borehole 11593, depth 276.6 m, lst. G<sub>1</sub><sup>2</sup>, Upper Bashkirian; 19: IGSU-0130, same loc. and lst.; 20: IGSU-1483-13, same loc. and lst. as fig. 16.

Figs. 18, 22. *Neognathodus atokaensis* Grayson, 1984  
Pashennaya Valley, Lower Moscovian; 18: IGSU-756-1, lst. K<sub>9</sub>; 22: IGSU-1455-1, lst. K<sub>8</sub>.

Figs. 21, 23. *Neognathodus* aff. *bothrops* Merrill, 1971  
Pashennaya Valley, basal Moscovian; 21: IGSU-1455-2, lst. K<sub>3</sub>; IGSU-593-1, K<sub>3</sub><sup>1</sup>.

Fig. 24. *Neognathodus* cf. *caudatus* Lambert, 1992  
IGSU-597-a/8, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian.



## Plate 6

Illustrated specimens are housed in the IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1-2. *Streptognathodus expansus* Igo & Koike 1964

1: IGSU-1483-12, Volnukhino Village, lst. H<sub>5</sub>, Upper Bashkirian,  $\times 80$ ; 2: IGSU-68/2063, watershed between the Rudnya and Zatsëpa gullies, lst. G<sub>1</sub>, basal Upper Bashkirian.

Figs. 3-5, 7. *Streptognathodus suberectus* Dunn, 1966

3: IGSU-1495-3 (juvenile): Rudnya gully, lst. G<sub>3</sub><sup>3</sup>, Upper Bashkirian; 4: IGSU-1495-4, same lst. and loc.; 5: IGSU-1390-5 (gerontic), Sorochya gully, lst. H<sub>4</sub>, Upper Bashkirian; 7: IGSU-1390-6, same loc. and lst.

Figs. 6, 13, 16, 18. *Streptognathodus transitivus* Kossenko, 1978

Pashennaya Valley, Lower Moscovian; 6: IGSU-756-5, lst. K<sub>9</sub>; 13: IGSU-597-a/10, lst. K<sub>6</sub>; 16: IGSU-756-3, lst. K<sub>6</sub>; 18: IGSU-591-1, lst. K<sub>7</sub>.

Figs. 8-11. *Streptognathodus parvus* Dunn, 1966

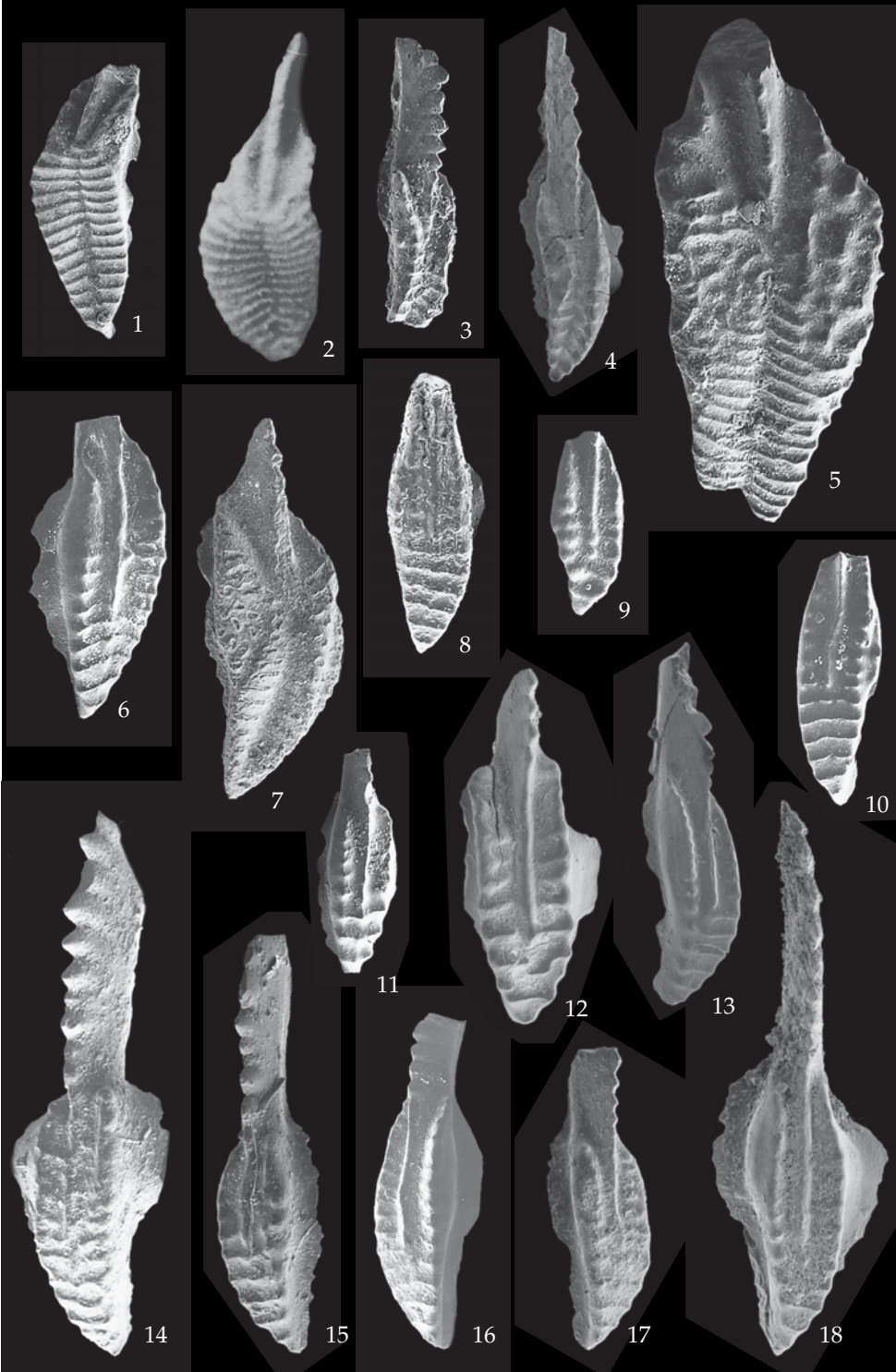
8: IGSU-263-2, Zolotaya Valley, lst. K<sub>1</sub>, uppermost Bashkirian; 9: IGSU-1338-1, Kholodnaya gully, lst. I<sub>2</sub>, Upper Bashkirian; 10: IGSU-597-a/9, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 11: IGSU-1386, same loc. and lst. as fig. 9.

Fig. 12. *Str. aff. transitivus* Kossenko, 1978

IGSU-756-2, Pashennaya Valley, lst. K<sub>9</sub>, Lower Moscovian.

Figs. 14-15, 17. *Streptognathodus aff. parvus* Dunn, 1966

Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 14: IGSU-273-4; 15: IGSU-273-5; 17: IGSU-273-6.



## Plate 7

All illustrated specimens are housed in the IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1-2, 13, 15, 17. *Idiognathodus* sp. 2

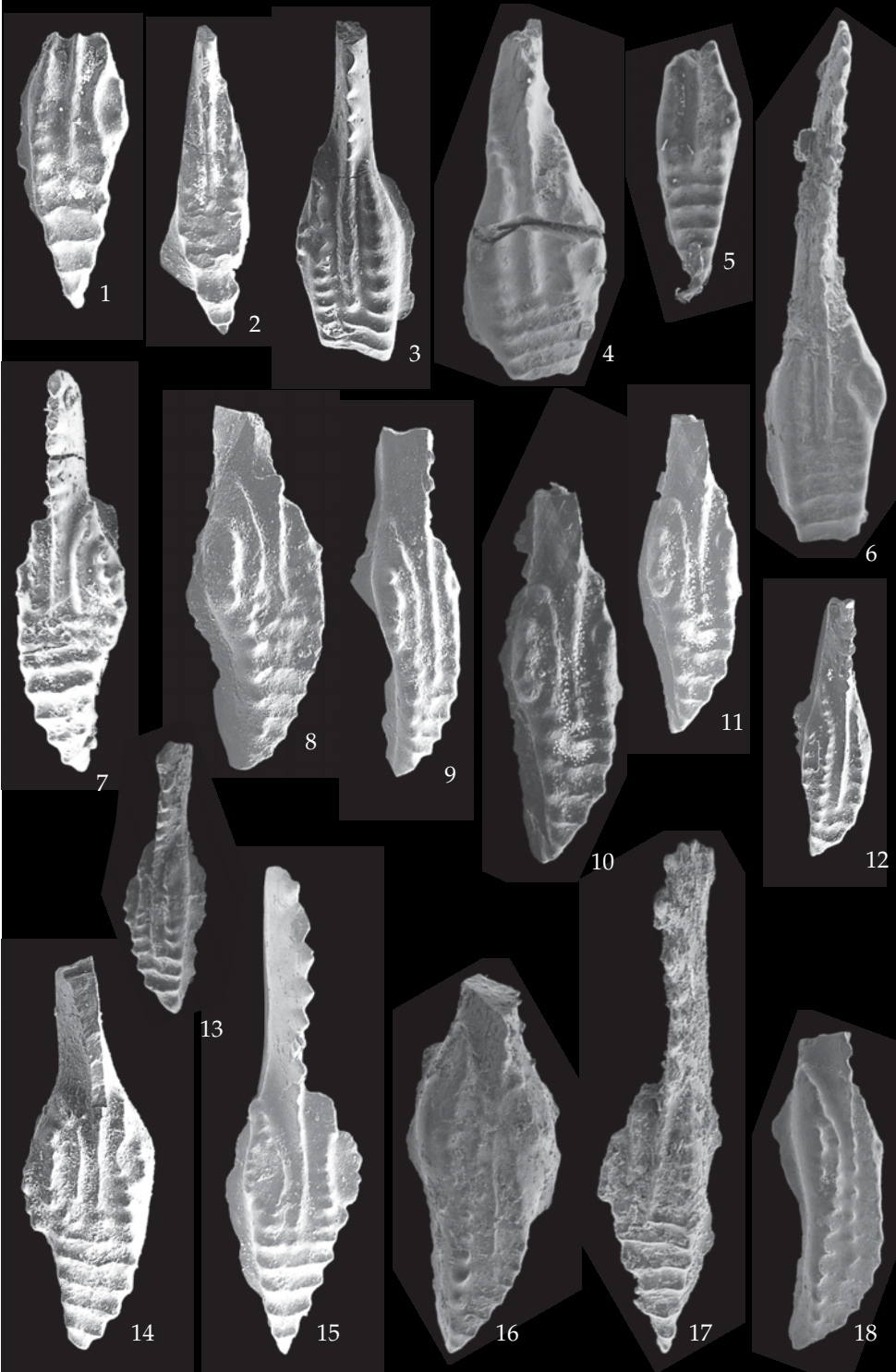
Zolotaya Valley, Upper Bashkirian; 1: IGSU-1425-1, lst. I<sub>2</sub>; 2: IGSU-1500 (juvenile), lst. I<sub>4</sub>,  $\times 80$ ; 13: IGSU-1425, lst. I<sub>2</sub>; 15: IGSU-267-1, lst. I<sub>2</sub>; 17: IGSU-267-2, lst. I<sub>2</sub>.

Figs. 3-6. *Streptognathodus* sp. 1

Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 3: IGSU-597-a/11; 4: IGSU-597-a/12; 5: IGSU-598; 6: IGSU-597 a/13.

Figs. 7-12, 14, 16, 18. *Idiognathodus* sp. 1

Zolotaya Valley, Upper Bashkirian, lst. I<sub>2</sub><sup>1</sup>; 7: IGSU-1338-5, lst. I<sub>2</sub><sup>1</sup>; 8: IGSU-1338-2, lst. I<sub>2</sub><sup>1</sup>; 9: IGSU-1338-3, lst. I<sub>2</sub><sup>1</sup>; 10: IGSU-1338-4, lst. I<sub>2</sub><sup>1</sup>; 11: IGSU-267-4, lst. I<sub>2</sub><sup>1</sup>; 12: IGSU-1425-2,  $\times 75$ , lst. I<sub>2</sub>; 14: IGSU-262-1, lst. I<sub>2</sub><sup>1</sup>; 16: IGSU-267-5, lst. I<sub>2</sub><sup>1</sup>; 18: IGSU-262-2, lst. I<sub>2</sub>.



## Plate 8

Illustrated specimens are housed in the IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ .

Figs. 1, 8. *Idiognathodus primulus* Higgins, 1975

Zolotaya Valley, lst. I<sub>2</sub>, Upper Bashkirian; 1: IGSU-262-3; 8: IGSU-1522-1.

Figs. 2, 9, 13, 14. *Idiognathodus praedelicatus* sp. nov.

2: IGSU-1394-2, Rudnya-Zatsepa Valley, lst. G<sub>1</sub><sup>1</sup>, lowermost part of Upper Bashkirian; 9: IGSU-264-2, Zolotaya Valley, lst. I<sub>4</sub>, Upper Bashkirian; 13: IGSU-1490, Volnukhino Village, lst. H<sub>3</sub>, Upper Bashkirian; 14: IGSU-279-1, Dolgy Valley, lst. H<sub>5</sub>, Upper Bashkirian.

Figs. 3, 4, 6, 10, 12, 15. *Idiognathodus sinuosus* Ellison & Graves, 1941

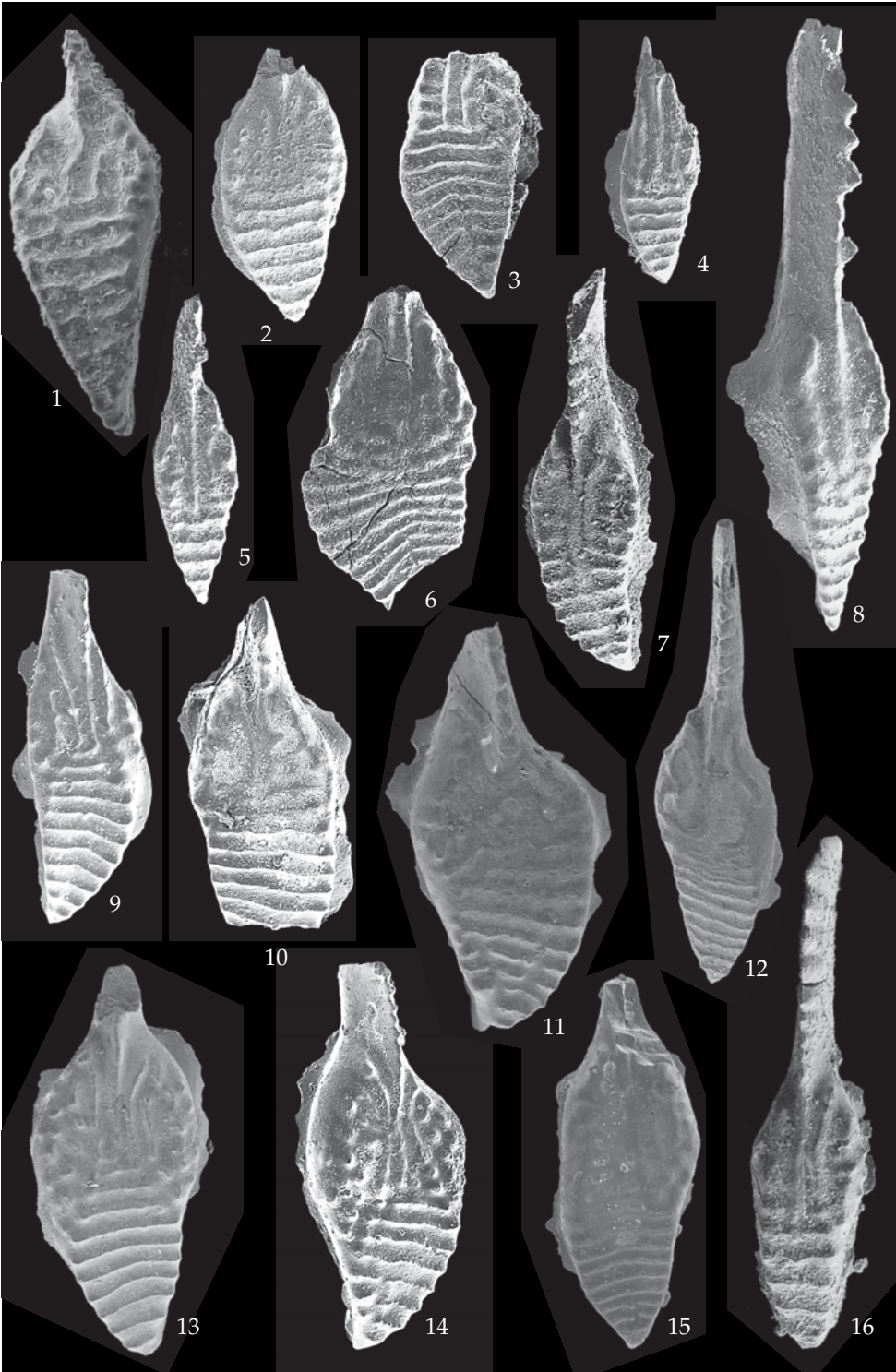
3: IGSU-283-1, Kryvenky Yar, lst. F<sub>1</sub><sup>2</sup>, Lower Bashkirian; 4: IGSU-206, Uspenka Vilage, lst. K<sub>1</sub>, Upper Bashkirian; 6: IGSU-283-2, same loc. and lst. as fig. 3; 10: IGSU-1467, watershed between the Medovaya and Orekhovaya valleys, lst. G<sub>1</sub><sup>1</sup>, lowermost part of the Upper Bashkirian; 12: IGSU-322-4, same loc. and lst. as fig. 3; 15: IGSU-15222, Zolotaya Valley, lst. I<sub>2</sub>, Upper Bashkirian.

Figs. 5, 7, 16. *Idiognathodus* spp.

5: IGSU-1425-3, Zolotaya Valley, lst. I<sub>2</sub>, Upper Bashkirian; 7: IGSU-1546-1, watershed between the Rudnya and Zatsepa valleys, lst. G<sub>3</sub><sup>1</sup>, Upper Bashkirian; 16: IGSU-1522-3, same loc. and lst. as fig. 5.

Fig. 11. *Idiognathodus* aff. *klapperi* Lane & Straka, 1974

IGSU-1489-1, Volnukhino Village, lst. H<sub>5</sub>, Upper Bashkirian.





## Plate 9

Illustrated specimens are housed in IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1-2, 11-13. *Idiognathodus* sp. 3

1: IGSU-1388-1, Khartsyzskaya gully, lst. I<sub>4</sub>, Upper Bashkirian; 2: IGSU-95, same loc. and lst.; 11: IGSU-1388-2, Kholodnaya gully, same lst.; 12: IGSU-1415-1, Zolotaya Valley, same lst.; 13: IGSU-264-2, same loc. and lst.

Figs. 3, 4. *Idiognathodus incurvus* Dunn, 1966

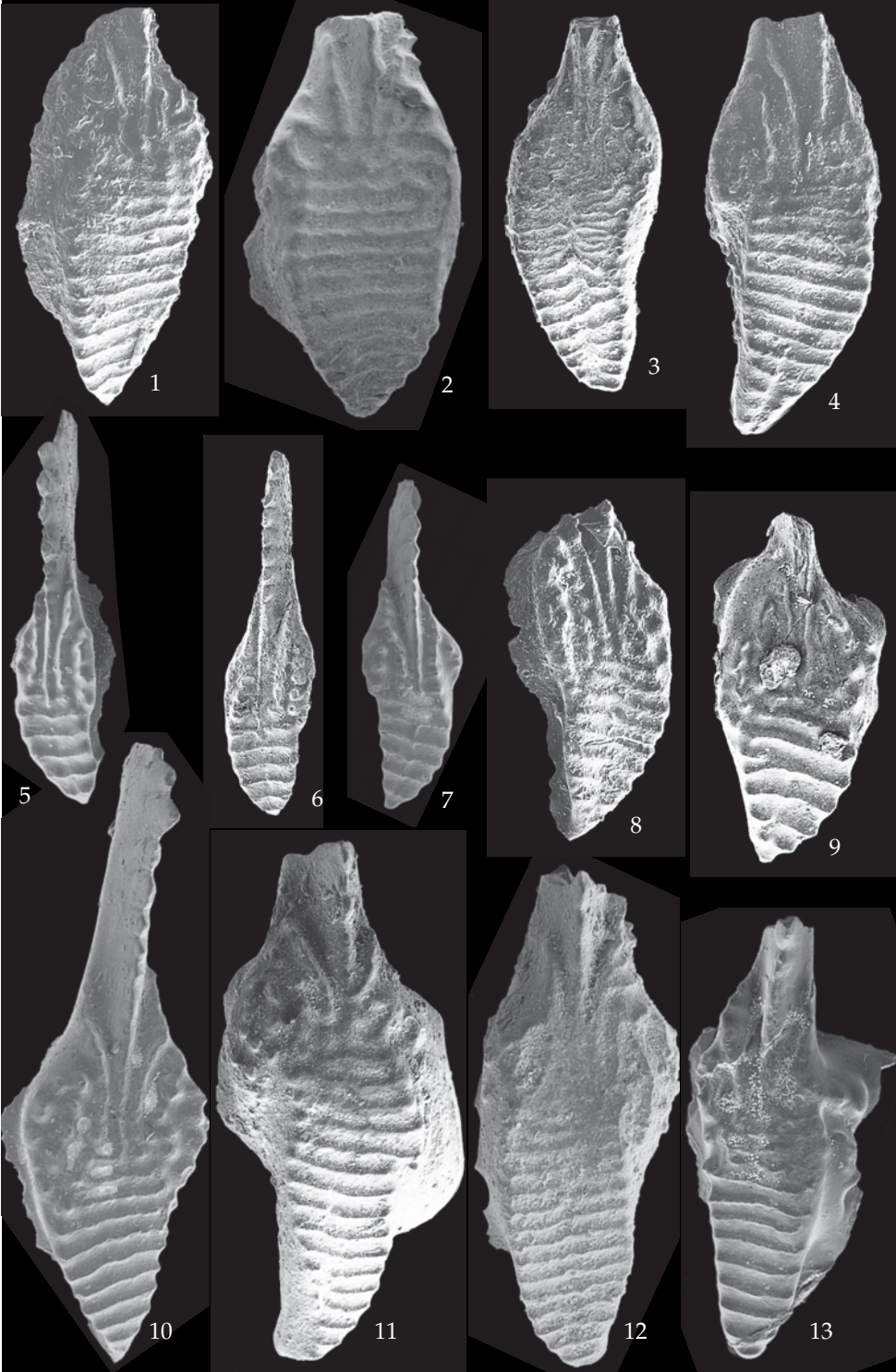
3: IGSU-1415-2, Zolotaya Valley, lst. I<sub>4</sub>, Upper Bashkirian; 4: IGSU-1388-3, Kholodnaya gully, same lst., Upper Bashkirian.

Figs. 5-8, 10. *Idiognathodus delicatus* Gunnell, 1931

5: IGSU-263-3, Zolotaya Valley, lst. K<sub>1</sub>, Upper Bashkirian,  $\times 80$ ; 6: IGSU-589, Zolotaya Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 7: IGSU-597-1, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 8: IGSU-261-2, same lst. and loc. as fig. 6; 10: IGSU-597-2, same loc. and lst. as fig. 7.

Fig. 9. *Idiognathodus praedelicatus* sp. nov.

IGSU-279-2, Dolgy Valley, lst. H<sub>5</sub>, Upper Bashkirian.



## Plate 10

Illustrated specimens are housed in IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1-4, 7, 10-11. *Idiognathodus aljutovensis* Alekseev, Barskov & Kononova, 1994

1: IGSU-1483-13, Volnukhino Village, lst. H<sub>5</sub>, Upper Bashkirian; 2: IGSU-1483-14, same loc. and lst.; 3: IGSU-597-3, Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian; 4: IGSU-595, same loc., lst. K<sub>3</sub><sup>1</sup>, lowermost Moscovian; 7: IGSU-1534-2, Zolotaya Valley, lst. I<sub>2</sub><sup>1</sup>, Upper Bashkirian; 10: IGSU-1489-2,  $\times 80$ , same loc. and lst. as fig. 1; 11: IGSU-1426, Kholodnaya gully, lst. I<sub>3</sub>, Upper Bashkirian.

Figs. 5, 8. *Gondolella* cf. *donbassica* Kossenko, 1978

Pashennaya Valley, lst. K<sub>6</sub>, Lower Moscovian,  $\times 80$ ; 5: IGSU-597-4; 8: IGSU-597-5.

Fig. 6. *Idiognathodus delicatus* Gunnell, 1931

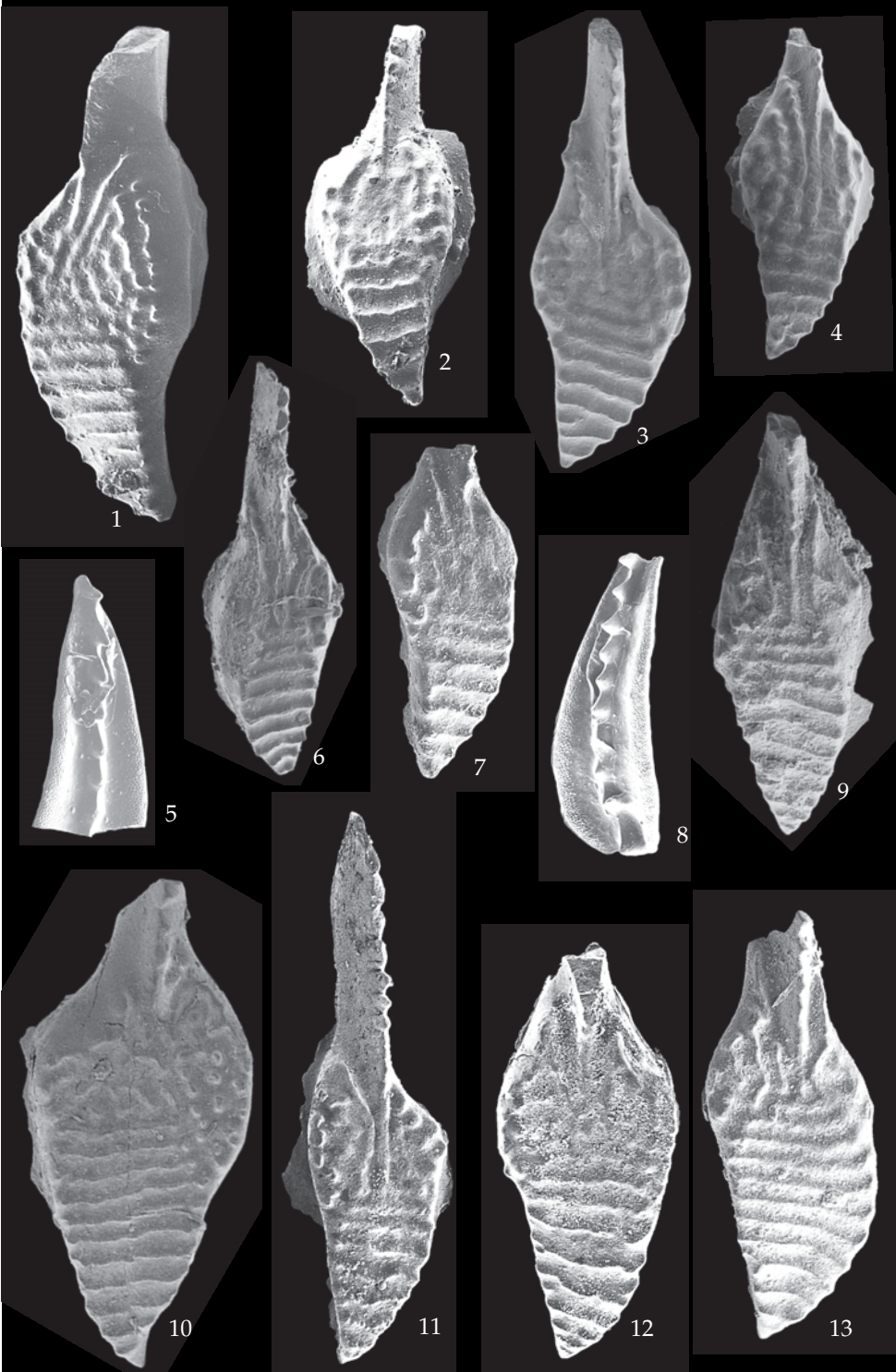
IGSU-262-4, Zolotaya Valley, lst. K<sub>2</sub>, uppermost Bashkirian.

Figs. 9, 12. *Idiognathodus* aff. *sinuosus* Ellison & Graves, 1941

Watershed between Rudnya and Zatsopa gullies, lst. G<sub>3</sub><sup>1</sup>, Upper Bashkirian; 9: IGSU-1546-2; 12: IGSU-1546-3.

Fig. 13. *Idiognathodus* sp.

IGSU-264-3, Zolotaya Valley, lst. I<sub>2</sub>, Upper Bashkirian.



## Plate 11

Illustrated specimens are housed in IGS UNAS, Kiev, Ukraine; all figures  $\times 70$ , except where otherwise indicated.

Figs. 1-8, 10-12. *Idiognathodus incurvus* Dunn, 1966

1: IGSU-264-4, Khartsyzskaya gully, lst. I<sub>4</sub>, Upper Bashkirian; 2: IGSU-273-7, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 3: IGSU-1415-3, Kholodnaya gully, lst. I<sub>4</sub>, Upper Bashkirian; 4: IGSU-1478-1, Zolotaya Valley, lst. I<sub>4</sub>, Upper Bashkirian; 5: IGSU-261-3, Zolotaya Valley, lst. K<sub>2</sub>, uppermost Bashkirian; 6: IGSU-1478-2 (juvenile), same loc. and lst. as fig. 4; 7: IGSU-1478-3 (juvenile), same loc. and lst.; 8: IGSU-261-4, same loc. and lst. as fig. 5; 10: IGSU-1478-4, same loc. and lst. as fig. 4.

Figs. 11-12. *Idiognathodus postsulcatus* sp. nov.

IGSU-K6-1 and IGSU-K6-2, respectively, Pashennaya Valley, lst. K<sub>0</sub>, Lower Moscovian.

Figs. 9, 16, 18. *Idiognathodus* sp. A Grubbs, 1984

9: IGSU-1455-3, Khartsyzskaya gully, lst. K<sub>7</sub>, Lower Moscovian; 16: IGSU-273-8, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian,  $\times 75$ ; 18: IGSU-1455-4, same loc. and lst. as fig. 9,  $\times 80$ .

Fig. 13. *Idiognathodus sinuosus* Ellison & Graves, 1941

IGSU-590-1, Zolotaya Valley, lst. K<sub>3</sub>, basal Moscovian.

Figs. 14-15. *Diplognathodus ellesmerensis* Bender, 1980

14: IGSU-590-2, Zolotaya Valley, lst. K<sub>3</sub>, basal Moscovian,  $\times 80$ ; 15: IGSU-29, Karaguz Valley, lst. K<sub>5</sub>, Lower Moscovian,  $\times 80$ .

Fig. 17. *Idiognathodus delicatus* Gunnell, 1931

IGSU-1426-2, specimen transitional from *I. praedelicatus* sp. nov. to *I. delicatus*, Kholodnaya gully, lst. I<sub>3</sub>, Upper Bashkirian.

Figs. 19-20. *Idiognathodus* aff. sp. A Grubbs, 1984

IGSU-273-9 and IGSU-273-10, respectively, Karaguz Valley, lst. K<sub>2</sub>, uppermost Bashkirian.

