

Koopman J., Kalinowski P., Stech M. & Więclaw H. (2019) *Carex xkneuckeri*, a hybrid new for central Europe and neotypification of this name. – Preslia 91: 161–177.

Electronic Appendix 1. – Specimens included in the molecular analysis

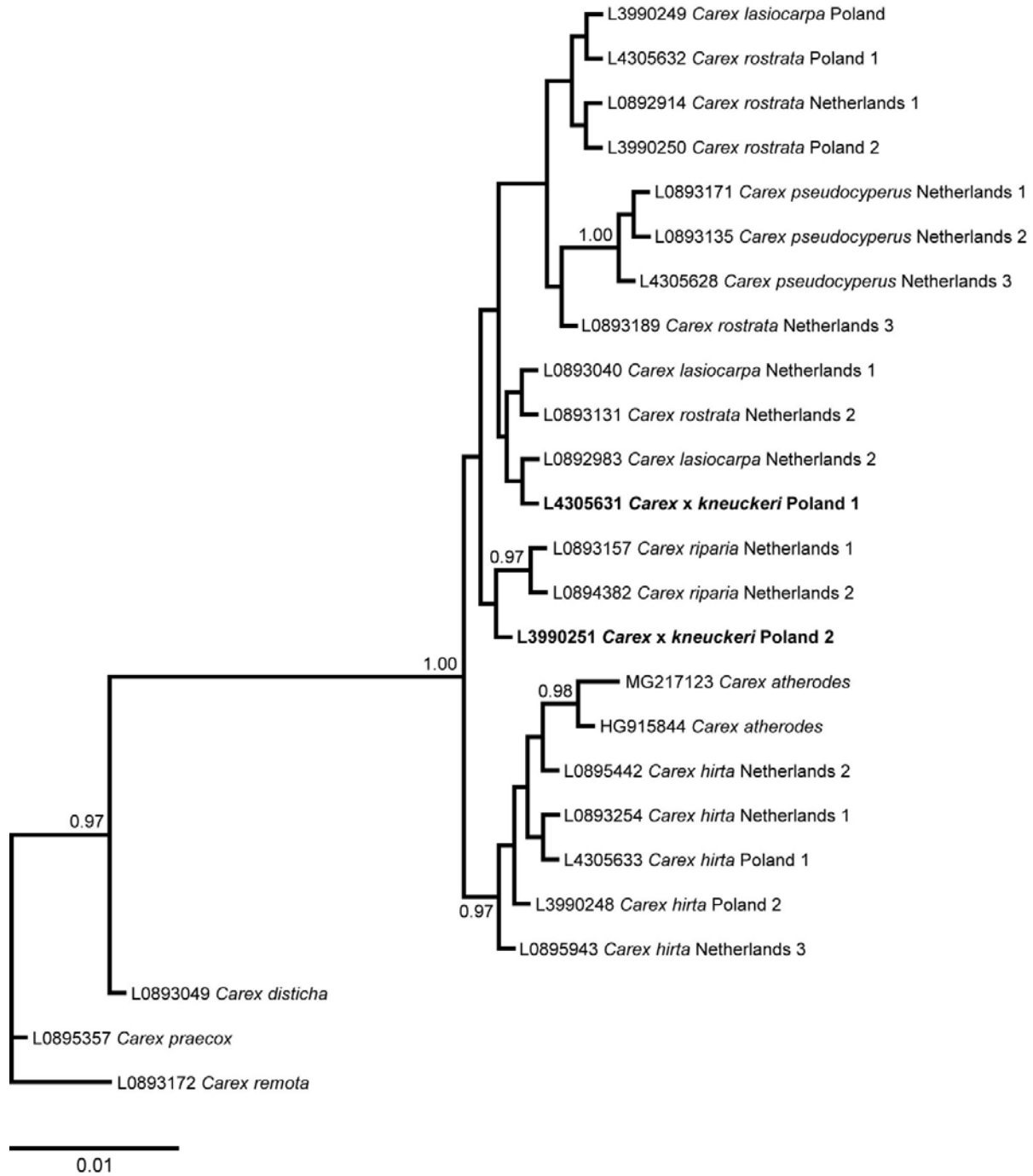
| Taxon | Geographic origin | Herbarium no. | Voucher no. | DNA extract no. | BOLD sequence page | GenBank acc. no. <i>matK</i> | GenBank acc. no. ITS |
|----------------------------|-------------------|---------------|------------------------|-----------------|--------------------|------------------------------|----------------------|
| <i>Carex atherodes</i> | Canada | ? | CCDB-21244-A02 | ? | -- | MG217123 | -- |
| <i>Carex atherodes</i> | USA, Alaska | ? | Giger s.n. | ? | -- | HG915844 | HG915799 |
| <i>Carex disticha</i> | Netherlands | L0893049 | Weeda 115 | e25919832 | NLFLM184-12 | -- | -- |
| <i>Carex hirta</i> | Netherlands | L0893254 | Weeda s.n. | e25921188 | NLFLM319-12 | -- | -- |
| <i>Carex hirta</i> | Netherlands | L0895442 | Buiten s.n. | e4007589523 | NLFLM3064-16 | -- | -- |
| <i>Carex hirta</i> | Netherlands | L0895943 | Toetenel s.n. | e4003828069 | NLFLM3546-16 | -- | -- |
| <i>Carex hirta</i> | Poland | L4305633 | Kalinowski et al. s.n. | e4012528223 | -- | MK397942 | MK397968 |
| <i>Carex hirta</i> | Poland | L3990248 | Więclaw et al. s.n. | Ch2 | -- | MK397935 | MK397943 |
| <i>Carex lasiocarpa</i> | Netherlands | L0892983 | Weeda 23 | e25919964 | NLFLM118-12 | -- | -- |
| <i>Carex lasiocarpa</i> | Netherlands | L0893040 | Weeda 106 | e25919928 | NLFLM175-12 | -- | -- |
| <i>Carex lasiocarpa</i> | Poland | L3990249 | Więclaw et al. s.n. | Cl2 | -- | MK397936 | MK397944 |
| <i>Carex praecox</i> | Netherlands | L0895357 | van Beusekom s.n. | e4007589464 | NLFLM2984-16 | -- | -- |
| <i>Carex pseudocyperus</i> | Netherlands | L0893135 | Weeda s.n. | e25919874 | NLFLM200-12 | -- | -- |
| <i>Carex pseudocyperus</i> | Netherlands | L0893171 | Weeda s.n. | e25918203 | NLFLM236-12 | -- | -- |
| <i>Carex pseudocyperus</i> | Netherlands | L4305628 | Waller s.n. | e4012528218 | -- | MK397939 | MK397957 |
| <i>Carex remota</i> | Netherlands | L0893172 | Weeda s.n. | e25919917 | NLFLM237-12 | -- | -- |
| <i>Carex riparia</i> | Netherlands | L0893157 | Weeda s.n. | e25921174 | NLFLM222-12 | -- | -- |
| <i>Carex riparia</i> | Netherlands | L0894382 | Fortuin s.n. | e4003828030 | NLFLM2046-16 | -- | -- |
| <i>Carex rostrata</i> | Netherlands | L0892914 | Weeda 75 | e25921235 | NLFLM074-12 | -- | -- |
| <i>Carex rostrata</i> | Netherlands | L0893131 | Weeda s.n. | e25919904 | NLFLM196-12 | -- | -- |
| <i>Carex rostrata</i> | Netherlands | L0893189 | Weeda s.n. | e25921177 | NLFLM254-12 | -- | -- |
| <i>Carex rostrata</i> | Poland | L4305632 | Kalinowski et al. s.n. | e4012528222 | -- | MK397941 | MK397967 |
| <i>Carex rostrata</i> | Poland | L3990250 | Więclaw et al. s.n. | Cr2 | -- | MK397937 | MK397945 |
| <i>Carex x kneuckeri</i> | Poland | L4305631 | Kalinowski et al. s.n. | e4012528221 | -- | MK397940 | MK397958 |
| clone c2 | | | | | | -- | MK397959 |
| clone c3 | | | | | | -- | MK397960 |
| clone c4 | | | | | | -- | MK397961 |
| clone c6 | | | | | | -- | MK397962 |
| clone c7 | | | | | | -- | MK397963 |
| clone c8 | | | | | | -- | MK397964 |
| clone c9 | | | | | | -- | MK397965 |
| clone c10 | | | | | | -- | MK397966 |
| <i>Carex x kneuckeri</i> | Poland | L3990251 | Więclaw et al. s.n. | Cxk2 | -- | MK397938 | MK397946 |

| | | |
|-----------|----|----------|
| clone c1 | -- | MK397947 |
| clone c2 | -- | MK397948 |
| clone c3 | -- | MK397949 |
| clone c4 | -- | MK397950 |
| clone c5 | -- | MK397951 |
| clone c6 | -- | MK397952 |
| clone c7 | -- | MK397953 |
| clone c8 | -- | MK397954 |
| clone c9 | -- | MK397955 |
| clone c10 | -- | MK397956 |

Electronic Appendix 2. – Relevés with *Carex ×kneuckeri* (SE Poland, Lubelskie Province, county and municipality of Chełm, west of the village Nowosiółki)

| Date | 1 July 2016 | 17 June 2017 |
|---|-------------|--------------|
| Area (m ²) | 25 | 25 |
| Water level (cm) | 15-20 | - |
| Cover of moss layer (%) | 70 | 90 |
| Cover of herb layer (%) | 40 | 90 |
| Number of species | 21 | 29 |
| <i>Carex ×kneuckeri</i> | 2 | 3 |
| <i>Molinio-Arrhenathetetea</i> | | |
| <i>Juncus inflexus</i> | 1 | 1 |
| <i>Equisetum palustre</i> | + | 2 |
| <i>Caltha palustris</i> | 1 | + |
| <i>Cardamine pratensis</i> | + | 2 |
| <i>Carex cespitosa</i> | | 1 |
| <i>Ranunculus repens</i> | + | + |
| <i>Rumex crispus</i> | + | r |
| <i>Agrostis stolonifera</i> | + | + |
| <i>Ranunculus acris</i> | + | |
| <i>Carex hirta</i> | + | + |
| <i>Epilobium hirsutum</i> | | + |
| <i>Lysimachia vulgaris</i> | | + |
| <i>Myosotis palustris</i> | | + |
| <i>Festuca rubra</i> | | r |
| <i>Potentilla anserina</i> | | r |
| <i>Lychnis flos-cuculi</i> | | r |
| <i>Phragmito-Magnocaricetea</i> | | |
| <i>Equisetum fluviatile</i> | + | 1 |
| <i>Carex acuta</i> | 2 | |
| <i>Carex rostrata</i> | + | 1 |
| <i>Lycopus europaeus</i> | + | + |
| <i>Lythrum salicaria</i> | + | + |
| <i>Alisma plantago-aquatica</i> | + | |
| <i>Eleocharis uniglumis</i> | + | |
| <i>Mentha aquatica</i> | | + |
| <i>Poa palustris</i> | | + |
| <i>Carex pseudocyperus</i> | | r |
| <i>Galium palustre</i> | | r |
| <i>Scheuchzerio palustris-Caricetea fuscae</i> | | |
| <i>Carex nigra</i> | | 2 |
| <i>Epilobium palustre</i> | + | + |
| <i>Juncus articulatus</i> | + | r |
| <i>Alnetea glutinosae</i> | | |
| <i>Calliergonella cuspidata</i> | 4 | 5 |
| <i>Lemnetea</i> | | |
| <i>Lemna minor</i> | + | |
| <i>Franguletea</i> | | |
| <i>Salix cinerea</i> | | r |

Electronic Appendix 3. – The consensus tree of the Bayesian analyses – *matK*.



Electronic Appendix 4. – The consensus tree of the Bayesian analyses – ITS.

