

Table S1. Specimen information of eight *Thesium* species morphologically similar to *T. celatum* and *T. hispidifructum*, examined during this study. Where available herbarium barcodes are provided for specimens. Missing information are indicated with “-”.

| Species | Collector name(s) and number | Date | Country | Herbarium |
|--------------------------|-------------------------------------|-------------------|--------------|--|
| <i>T. burchellii</i> | Burchell W.J. 2504 (Type) | - | South Africa | K000431630 |
| | Kelaole E.T. 509 | 01 November 1968 | Botswana | K |
| <i>T. gracilarioides</i> | Acocks J.P.H. 8505 | 09 January 1938 | South Africa | K |
| | Compton R.H. 26525 | 30 January 1957 | Eswatini | PRE0379172-0, PRE0713888-0 |
| <i>T. gracilarioides</i> | Compton R.H. 28367 | 18 November 1958 | Eswatini | PRE0714493-0 |
| | Galpin E.E. 543 (Type) | 09 October 1889 | South Africa | K000431692 |
| | Galpin E.E. M315 | 19 January 1919 | South Africa | PRE0379029-0 |
| | Germishuizen G. 5806 | 09 December 1992 | South Africa | PRE0787354-0 |
| | Hafstrom A.H.F. & Acocks J.P.H. 466 | 26 October 1938 | South Africa | PRE0379024-0 |
| | Hilliard O.M. & Burt B.L. 18466 | 24 October 1985 | South Africa | PRE0686502-0 |
| | Hilliard O.M. & Burt B.L. 18497 | 29 October 1985 | South Africa | PRE0686480-0 |
| | Kluge J.P. 1102 | 27 October 1977 | South Africa | PRE0521280-0 |
| | Rogers F.A. 18269 | November 1915 | South Africa | K |
| | Rogers F.A. 21549 | - | South Africa | K |
| | Saltmarshe E. 1048 (Type) | 15 September 1890 | South Africa | K000431693, PRE0379033-0 |
| | Stauffer H.U. & Weder M. 5278 | 11 October 1963 | South Africa | PRE0379031-0 |
| | Stauffer H.U. & Weder M. 5282 | 11 October 1963 | South Africa | PRE0379030-0 |
| | Thode H.J. A1638 | October 1928 | South Africa | PRE0456333-0 |
| | van Vuuren D.R.J. 263 | 01 August 1957 | South Africa | PRE0379022-0 |
| | Venter S. 10720 | 04 July 1985 | South Africa | PRE0729407-0 |
| | Visser N. & Le Roux M.M. 222 | 29 October 2016 | South Africa | PRE0992554-0 |
| | Visser N. & Le Roux M.M. 223 | 29 October 2016 | South Africa | PRE0992552-0 |
| | Visser N. & Le Roux M.M. 224 | 29 October 2016 | South Africa | PRE0992788-0 |
| <i>T. megalocarpum</i> | Dinter M.K. 912 (Type) | 03 December 1908 | Namibia | K000431790, SAM0074307-1, SAM0074307-2 |
| | Dinter M.K. 726 (Type) | 29 November 1908 | Namibia | SAM0074310-0 |
| | Giess J.W.H. 12506 | 08 March 1973 | Namibia | PRE0455938-0 |
| | Strohbach B.J. 2664 | 30 March 1996 | Namibia | PRE0081689-0 |
| | Schoenfelder E.B.W. S.390 | 09 January 1934 | Namibia | PRE0375102-0 |
| | Dinter M.K. 5639 | 20 February 1925 | Namibia | PRE0375104-0 |
| | Boss J. s.n. (TRV 36386) | 01 January 1937 | Namibia | PRE0375101-0 |
| | Dinter M.K. 585 (Type) | - | Namibia | K000431789 |
| <i>T. procerum</i> | Bonsma K. s.n. (TRV 12776) | May 1913 | South Africa | PRE0377494-0 |
| | Bredenkamp G.J. 809 | 07 April 1972 | South Africa | PRE0377552-0 |
| | Codd L.E.W. 2314 | 11 December 1946 | South Africa | PRE0374114-0 |
| | De Castro A. 1100 | 06 November 2006 | South Africa | PRE0850766-0 |
| | Du Plessis C.J. 976 | 29 October 1968 | South Africa | PRE0381904-0 |

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| | <i>Hafstrom A.H.F. & Acocks J.P.H.</i> 463 | 03 October 1938 | South Africa | PRE0374115-0 |
| | <i>Leendertz R.</i> 2546 | 26 November 1909 | South Africa | PRE0377496-0 |
| | <i>Le Roux M.M.</i> 180 | 18 October 2016 | South Africa | PRE0992424-0 |
| | <i>Mogg A.O.D.</i> 20486 | 03 January 1953 | South Africa | PRE0374116-0 |
| | <i>Repton J.E.</i> 3887 | 25 November 1951 | South Africa | PRE0379045-0 |
| | <i>Repton J.E.</i> 4022 | 01 February 1953 | South Africa | PRE0374117-0 |
| | <i>Rogers F.A.</i> 30021 | 13 October 1917 | South Africa | PRE0374112-0 |
| | (Type) | | | |
| | <i>Rudatis H.H.</i> 2614 | 02 April 1922 | South Africa | PRE0746458-0 |
| | <i>Strey R.G.</i> 3266 | 27 March 1960 | South Africa | PRE0377554-0 |
| | <i>Thode J.</i> 4814 | January 1912 | South Africa | PRE0745528-0 |
| | <i>Thode J.</i> A1768 | December 1928 | South Africa | PRE0375258-0 |
| | <i>Wells M.J.</i> 4052 | 15 October 1969 | South Africa | PRE0614888-0 |
| <i>T. whyteanum</i> | <i>Brass L.J.</i> 16750 | 09 July 1946 | Malawi | K |
| | <i>Chapman J.D.</i> 662 | 18 June 1958 | Malawi | K |
| | <i>Goodier; Phipps</i> 37 | 19 April 1957 | Zimbabwe | K |
| | <i>Brummitt R.K., Banda, E.A. & Blackmore S.</i> 405 | 13 February 1979 | Malawi | K |
| | <i>Chapman J.D.</i> 6064 | 24 December 1981 | Malawi | K |
| | <i>Brass L.J.</i> 16406 | 24 June 1946 | Malawi | K |
| | <i>Chapman J.D. & Chapman E.G.</i> 7970 | 17 August 1986 | Malawi | K |
| | <i>Jackson G.</i> 1966 | 16 July 1956 | Malawi | K |
| | <i>Chapman J.D. & Patel I.H.</i> 5779 | 12 May 1981 | Malawi | K |
| | <i>Salubeni A.J.</i> 1588 | 19 May 1971 | Malawi | K |
| | <i>West O.</i> 3647 | 18 May 1958 | Zimbabwe | K |
| | <i>Brummitt R.K., Banda, E.A. & Blackmore S.</i> 371 | 12 February 1979 | Malawi | K |
| | <i>Richards H.M.</i> 16589 | 07 June 1962 | Malawi | K |
| | <i>Pawek J.</i> 3838 | 17 September 1970 | Malawi | K |
| | <i>Phipps J.B.</i> 664 | 16 March 1957 | Zimbabwe | K |
| | <i>Adamson G.</i> 373 | - | Malawi | K |
| | <i>Wild H.</i> 6147 | 08 May 1963 | Malawi | K |
| | <i>Finlay R.</i> 10 | 02 September 1944 | Zimbabwe | K |
| | <i>Whyte</i> 45 (Type) | October 1891 | Malawi | BM000911007 |
| <i>T. disparile</i> | <i>Rehmann</i> 5212 | - | South Africa | K000431776 |
| | (Type) | | | |
| <i>T. rufescens</i> | <i>Schlechter</i> 1851 | 22 June 1892 | South Africa | BOL150309, K000431722, |
| | (Type) | | | KFTA0003112 |
| <i>T. transvaalense</i> | <i>Acocks J.P.H. & Hafström A.H.F.</i> 456 | 29 September 1938 | South Africa | PRE0377599-0 |
| | <i>Balkwill K.</i> 6509 | 05 October 1991 | South Africa | PRE0820593-0 |
| | <i>Balkwill K. & Balkwill M.J.</i> 9368 | 14 November 1993 | South Africa | PRE0177785-0 |
| | <i>Bester S.P.</i> 14004 | 07 December 2017 | South Africa | PRE0870085-0 |
| | <i>Bester S.P.</i> 14315 | 19 October 2018 | South Africa | PRE0870910-0 |
| | <i>Bester S.P.</i> 14320 | 19 October 2018 | South Africa | PRE0870915-0 |
| | <i>Bester S.P.</i> 7279 | 09 October 2006 | South Africa | PRE0841955-0 |
| | <i>Bester S.P.</i> 8103 | 30 September 2007 | South Africa | PRE0765158-0 |
| | <i>Botha D.J. & Ubbink B.</i> 1785 | 04 November 1976 | South Africa | PRE0950052-0 |
| | <i>Bradfield R.D.</i> 268A | 03 November 1934 | South Africa | PRE0377589-0 |
| | <i>Bredenkamp G.J.</i> 306 | 20 November 1971 | South Africa | PRE0377640-0 |
| | <i>Burgoyne P.M.</i> 10917 | 23 November 2007 | South Africa | PRE0860237-0 |
| | <i>Burt Davy J. s.n.</i> (PRE 2306) | 27 October 2004 | South Africa | PRE0377634-0 |
| | <i>Burt Davy J. s.n.</i> (PRE 7101) | 03 November 2007 | South Africa | PRE0377578-0 |
| | <i>Burt Davy J. s.n.</i> (PRE 721) | 09 November 2003 | South Africa | PRE0377635-0 |
| | <i>Clarke B.</i> 429 | 12 November 1972 | South Africa | PRE0377616-0 |
| | <i>Clarke B.</i> 430 | 12 November 1972 | South Africa | PRE0377617-0 |

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| Codd L.E.W. 3380 | 21 November 1947 | South Africa | PRE0377592-0 |
| Coetzee B.J. 318 | 09 October 1970 | South Africa | PRE0377639-0 |
| Coetzee B.J. 397 | 19 November 1970 | South Africa | PRE0377641-0 |
| Coetzee B.J. 508 | 23 November 1970 | South Africa | PRE0377627-0 |
| Curator Pretoria | - | South Africa | PRE0377633-0 |
| Botanical Garden s.n. (PRE 6065) | | | |
| Davies D.A. 15 | 20 November 1979 | South Africa | PRE0547830-0 |
| De Castro A. 1080 | 25 October 2006 | South Africa | PRE0851159-0 |
| De Winter B. 406 | 04 October 1948 | South Africa | PRE0377591-0 |
| Fries F. 5268 | 16 October 1930 | South Africa | PRE0950092-0 |
| Gilfillan D.F. 1419 | November 1896 | South Africa | B 10 0160791, K000431661, PRE0377575-0 |
| (Type) | | | |
| Gilfillan D.F. 24A | October 1898 | South Africa | PRE0377577-0 |
| Gilfillan D.F. 6068 | October 1898 | South Africa | PRE0377576-0 |
| Goossens A.P.G. 69 | 11 September 1930 | South Africa | PRE0377581-0 |
| Hahn N. 2668 | 19 October 2010 | South Africa | PRE0893148-0 |
| Jacobsen N.H.G. 1644 | 19 December 1970 | South Africa | PRE0377602-0 |
| Jenkins s.n. (PRE 60359) | 01 November 2010 | South Africa | PRE0749643-0 |
| Jenkins T.J. s.n. (TRV 6923) | 01 December 2008 | South Africa | PRE0377629-0 |
| Kroon N.V. 11709 | 29 October 1995 | South Africa | PRE0564091-0 |
| Kurzweg S. K1150 | 05 May 2009 | South Africa | PRE0861182-0 |
| Le Roux M.M. 182 | 18 October 2016 | South Africa | PRE0992427-0 |
| Leeman A.C. 25 | 18 November 2028 | South Africa | PRE0377636-0 |
| Leeman A.C. s.n. (PRE 52815) | 01 September 2028 | South Africa | PRE0377637-0 |
| Leendertz R. 255 | 11 November 2004 | South Africa | PRE0377588-0 |
| Louw W.J. 80 | 25 October 1938 | South Africa | PRE0377580-0 |
| McClean A.P.D. s.n. (PRE 52817) | 01 December 1943 | South Africa | PRE0377590-0 |
| Mogg A.O.D. 15219 | 16 September 2028 | South Africa | PRE0377604-0 |
| Mogg A.O.D. 23104 | 13 February 1954 | South Africa | PRE0377594-0 |
| Moss C.E. 2732 | 09 October 2019 | South Africa | PRE0377618-0 |
| Muller P.J. 153B | 01 December 1967 | South Africa | PRE0984436-0 |
| Nelson W.C. 249 | December 1877 | South Africa | PRE0377587-0 |
| Obermeyer A.A. 78 | 01 October 2029 | South Africa | PRE0377621-0 |
| Peppenene I.P. 71.5 B | 16 February 2013 | South Africa | PRE0869051-0 |
| Phillips E.P. 3034 | 12 October 2019 | South Africa | PRE0377603-0 |
| Pole-Evans I.B. s.n. (STEU25815) | October | South Africa | PRE0745438-0 |
| Pott-Leendertz R. 34321 | 04 October 2015 | South Africa | PRE0377584-0 |
| Reddy R.A., Reddy, K.B. & Reddy, P. 392 | 24 September 1997 | South Africa | PRE0173095-0 |
| Reddy R.A., Reddy, K.B. & Reddy, P. 791 | 11 October 1997 | South Africa | PRE0175028-0 |
| Reddy R.A., Reddy, K.B. & Reddy, P. 913 | 11 October 1997 | South Africa | PRE0175079-0 |
| Reddy R.A., Reddy, K.B. & Reddy, P. 947 | 19 October 1997 | South Africa | PRE0175182-0 |
| Repton J.E. 3137 | 12 October 1946 | South Africa | PRE0377632-0 |
| Repton J.E. 3886 | 25 November 1951 | South Africa | PRE0377595-0 |
| Repton J.E. 46 | 22 October 2028 | South Africa | PRE0377601-0 |
| Repton J.E. 47 | 22 October 2028 | South Africa | PRE0377600-0 |
| Reyneke W.F. s.n. (PRE 52818) | 24 June 1966 | South Africa | PRE0377643-0 |
| Rogers F.A. 22065 | 01 November 2018 | South Africa | PRE0377585-0 |
| Rogers F.A. 7101 | 01 November 2007 | South Africa | PRE0377598-0 |
| SAGP-SAAB/1 66 | 27 November 1971 | South Africa | PRE0456329-0 |
| Savage H. D21 | 31 January 1993 | South Africa | PRE0803148-0 |
| Schijf H. 158 | 20 October 1979 | South Africa | PRE0685615-0 |
| Schlechter F.R.R. 3507 | 19 October 1893 | South Africa | PRE0377622-0 |

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| <i>Schlechter F.R.R.</i> 3542 | 22 October 1893 | South Africa | PRE0377630-0 |
| <i>Schlechter F.R.R.</i> 3549 | 22 October 1893 | South Africa | PRE0377631-0 |
| <i>Schlieben H-J E</i> 8456 | 09 January 1961 | South Africa | PRE0375227-0 |
| <i>Smith C.A.</i> 3341 | 14 November 2026 | South Africa | PRE0377625-0 |
| <i>Smith C.A.</i> 3372 | 15 November 2026 | South Africa | PRE0377626-0 |
| <i>Smith C.A.</i> 575 | 13 September 2025 | South Africa | PRE0377597-0 |
| <i>Stauffer H.U.</i> 5299 | 15 October 1963 | South Africa | PRE0377596-0 |
| <i>Stent S.M. s.n. (PRE</i> 6065) | - | South Africa | PRE0377583-0 |
| <i>Story R.</i> 1370 | 02 October 1946 | South Africa | PRE0748257-0 |
| <i>Sutton J.D.</i> 711 | 13 December 1932 | South Africa | PRE0377638-0 |
| <i>Theiler A.C. s.n.</i> (PRE 59974) | 20 November 2012 | South Africa | PRE0745257-0 |
| <i>Theron G.K.</i> 1912 | 08 November 1968 | South Africa | PRE0382199-0 |
| <i>Unknown</i> 1785 | 04 November 1976 | South Africa | PRE0517504-0 |
| <i>Van Hoepen E.</i> 1734 | 07 November 1981 | South Africa | PRE0611798-0 |
| <i>Van Rooyen N.</i> 1938 | 27 September 1979 | South Africa | PRE0671299-0 |
| <i>Van Wyk A.E.</i> 1758 | 08 October 1976 | South Africa | PRE0480813-0 |
| <i>Van Wyk S.</i> 245 | 01 April 1983 | South Africa | PRE0650405-0 |
| <i>Verdoorn I.C.</i> 37 | 18 November 2019 | South Africa | PRE0377619-0 |
| <i>Visser N.</i> 192A | 06 October 2016 | South Africa | PRE0992569-0 |
| <i>Visser N.</i> 193 | 06 October 2016 | South Africa | PRE0992564-0 |
| <i>Visser N.</i> 194 | 06 October 2016 | South Africa | PRE0992563-0 |
| <i>Visser N.</i> 199 | 09 October 2016 | South Africa | PRE0992561-0 |
| <i>Westfall R.H.</i> 21 | 17 March 1978 | South Africa | PRE0529093-0 |
| <i>Young R.G.N. s.n.</i> (TRV 32410) | 22 October 1933 | South Africa | PRE0377620-0 |
