**BIOGRAPHICAL SKETCH - Craig E. Tweedie**

**A. Professional Preparation**

The University of Queensland, Australia Botany and Ecology B.Sc 1992

The University of Queensland, Australia Plant Ecology B.Sc (Hons1) 1995

The University of Queensland, Australia Plant Ecology Ph.D. 2000

Michigan State University, USA Arctic Ecology Postdoc 2000-04

**B. Appointments**

2011-Present Associate Professor, Department of Biology and the Environmental Science Program, The University of Texas at El Paso.

2005-2011 Assistant Professor, Department of Biology and the Environmental Science Program, The University of Texas at El Paso.

1993-1994: Conservation Research Officer Queensland Department of Environment and Heritage, Australia.

**C Ten most relevant publications (**\**includes student/postdoc mentored by Tweedie)***:**

\*Browning, D.M., A. Rango, J.W. Karl, C.M. Laney, **C.E. Tweedie**. Accepted. 'Emerging technological and cultural shifts advancing dryland research and management. *Frontiers in Ecology and Environment.*

\*Elmendorf S.C., G.H.R. Henry, R.D. Hollister and **15 co-authors**. Accepted. Experimental, gradient and monitoring methods used to infer climate change effects on plant communities yield consistent patterns. *Proceedings of the National Academy of Sciences*.

Elmendorf S.C., G.H.R. Henry, R.D. Hollister and 45 **co-authors**. 2012. Plot-scale evidence of tundra vegetation change and links to recent summer warming. *Nature climate change*. DOI: 10.1038/NCLIMATE1465.

Gangodagamage, C., Rowland, J. C., Hubbard, S. S., Brumby, S. P., Liljedahl, A. K., Wainwright, H., Wilson, C.J, Altmann G.L., Dafflon, B., Peterson, J., Ulrich, C., **Tweedie, C.E.,** & Wullschleger, S. D. (2014). Extrapolating active layer thickness measurements across Arctic polygonal terrain using LiDAR and NDVI data sets. *Water Resources Research*, *50*(8), 6339-6357.

\*Johnson, D. R., Lara, M. J., Shaver, G. R., Batzli, G. O., Shaw, J. D., & **Tweedie, C. E.** (2011). Exclusion of brown lemmings reduces vascular plant cover and biomass in Arctic coastal tundra: resampling of a 50+ year herbivore exclosure experiment near Barrow, Alaska. *Environmental Research Letters*,*6*(4), 045507.

\*Lara, M. J., McGuire, A. D., Euskirchen, E. S., Tweedie, C. E., Hinkel, K. M., Skurikhin, A. N., Romanovsky, V. Grosse, G. Bolton, W.R. Genet, H. Accepted. Polygonal tundra geomorphological change in response to warming alters future CO2 and CH4 flux on the Barrow Peninsula. *Global Change Biology*.\*

\*Lara M J, \*S Villarreal, D R Johnson, R D Hollister, P J Webber, **C E Tweedie**. 2012. Estimated change in tundra ecosystem function near Barrow, Alaska between 1972 and 2010. *Environmental Research Letters*. doi:10.1088/1748-9326/7/1/015507.

\*Lin, D., D. Johnson, C. Andresen, and **C.E. Tweedie**. 2012. High spatial resolution decade-time scale land cover change at multiple locations in the Beringian Arctic (1948–2000s). *Environmental Research Letters* 7(2): 025505.

Peters, D. P. C., K. M. Havstad, J. Cushing, **C. Tweedie**, O. Fuentes, and N. Villanueva-Rosales. 2014. Harnessing the power of big data: infusing the scientific method with machine learning to transform ecology. *Ecosphere* 5(6):67. http://dx.doi.org/10.1890/ES13-00359.1.

\*Villarreal S, D Hollister, D R Johnson, \*M J Lara, P J Webber, **C E Tweedie**. 2012. Tundra vegetation change near Barrow, Alaska (1972–2010). *Environmental Research Letters*. doi:10.1088/1748-9326/7/1/015508.

**D. Five most relevant synergistic activities:**

* Member, NSIDC-UCAR AON-CADIS data advisory panel
* Steering Committee member, Polar Geospatial Center, University of Minnesota
* National Ecological Observatory Network Domain Science Education Coordinating Committee (NEON-DESCC): Arctic (member), desert southwest (chair).
* Former member workshop organizing committee: 2013 strategies and recommendations for Arctic research support and logistics
* Former member National Academy of Sciences Blue Ribbon Panel: Toward and integrated Arctic Observing Network.

**E. Collaborators (recent Co-Authors and Co-PI’s)**

Alatalo, J. U. Gothenburg; Archer, S. U. Arizona; Altmann G.L. LANL; Batzli, G. U. Illinois Urbana-Champaign; Bestelmeyer, B. NMSU/USDA; Bestelmeyer, S. Asombro Inst.; Bhatt, U. UAF; Bret-Harte, D. UAF; Brown, J. Int. Permafrost Assoc.; Browning, D. USDA; Brumby, S.P. LANL; Callaghan, T. U. Sheffield; Christensen, T. Lund University; Comiso, J. NASA GSFC; Cook, W. MSU; Crimmins, M. U. Arizona; Cross, J. UAF; Cushing, J. Evergreen State College; Dafflon, B. LBNL; Duniway, M. USDA; Dunton, K. UTMSI; Ebert-May, D. MSU; Engstrom, R. George Washington U.; Epstein, Howie, U. Virginia; Euskirchen E.S. UAF, Gamon, J. U. Alberta; Gangodagamage, C. LANL; Gens, R. UAF; Gibbs, A. USGS; Gould, B. USFS; Gusmeroli, A. UAF; Harazono, Y. UAF; Henry, G. U. British Columbia; Hinzman, L. UAF; Hollister, B. GVSU; Hubbard, S.S. LBNL; Huemmrich, K. NASA GSFC; Jia, G. Inst Atmos. Physics, Beijing; Hinkel K.M U. Cincinnati; Jonsdottir, I. U. Iceland; Jones, B. USGS; Kennicutt, M. Texas A&M; Kimball, J. U. Montana; Klein, J. U. Wyoming; Kokelj, S. Indian and Northern Affairs, Canada; Lantz, T. U. Victoria; Liljedahl, A. UAF; Lipson, D. SDSU; Magnusson, B. Agricultural Research Inst. Iceland; Manley, W U. Colorado; Mano, M. UAF; Mathis, J. UAF/NOAA; McClaren, M. U. Arizona; McCLelland, J. UTMSI; McGuire, A.D. UAF; Mercado-Diaz, J. UPR; Molau, U. U. Gothenburg; Monger, C. NMSU; Morehouse, B. U. Arizona; Nelson, F. U. Delaware; Oberbauer, S. FIU; Oechel, W. SDSU; Ohba, K. Nagasaki Institute of Applied Science; Okin, G. UCLA; Olivas, P. FIU; Parsons, M. Research Data Alliance; Parton, W. CSU; Pavao-Zuckerman, M. U. Arizona; Peters, D. NMSU/USDA; Peterson, J. LBNL; Pinzon, J. NASA GSFC; Pulsifer, P. NSIDC; Rango, A. NMSU/USDA; Ravens, T.M. UAA; Raynolds, M. UAF; Redman, C. ASU; Richmond, B. USGS; Romanovsky, V. UAF; Rowland, J.C. LANL; Ruyle, G. U. Arizona; Shaver, G. MBL; Shiklomanov, K. GWU; Starr, G. U. Alabama; Streletskiy, D. GWU; Suding, K. UC Berkeley; Tolvanen, A. Finnish Forestry Institute; Torrel, A. NMSU; Totland, O. Norwegian University of Life Sciences; Tucker, C. NASA GSFC; Turner, P. U. Colorado; Ulrich, C. LBNL; Wullshleger, S.D. ORNL; Vanderbilt, K. UNM; Vescovo, L. Contro di Ecologia Alpina; Vivoni, E. ASU; Wahren, H. Latrobe U. ; Wainwright, H. LBNL; Walker, M. UAF; Walker, D. UAF; Welker, J. UAA; Wilson, CJ. LANL; Wookey, P. Heriot-Watt U.; Wu, Y. LBNL; Yarmey, L. NSIDC; Zona, D. SDSU.

**F. Graduate and Postdoctoral Advisors:**

David Doley, David Yates, The University of Queensland, Australia; Dana Bergstrom, Australian Antarctic Division; Patrick J. Webber, Michigan State University.

**G. Graduate students and Postdocs (25 total):**

***Masters students*** *(10 total)* ***–*** Marcus Sadak; Steven Rewa ~ MSU. Adrian Aguirre (2011), Jerald Brady (2011), Ryan Cody, Libia Gonzalez (2012), Edith Jaurrieta de Velasco (2010), George (Walker) Johnson (2011), Abdiel Lopez, Naomi Luna, ~ UTEP.

***Doctoral students*** (10 total) - Amorita Armendariz, Santonu Goswami (2011), Aline Jaimes (2014), Keith Kofoed, Christine Laney (2013), Mark Lara (2012), David Lin (2012), Rebecca Marin (2011), Sergio Vargas, Sandra Villarreal (2013) ~ UTEP

***Postdoctoral Research Associates*** (5 total) – David Johnson, Christine Laney, David Lin, Xia Song, Sandra Villarreal ~ UTEP.