

Christopher B. Anderson, PhD.

BIOGEOGRAPHY · REMOTE SENSING · FOREST CARBON · ECOSYSTEM SERVICES

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Education

Stanford University

Stanford, CA, USA

PHD, BIOLOGY

2016 - 2020

• Advisor: Gretchen C. Daily

University of California, Santa Cruz

Santa Cruz, CA, USA

BS, ECOLOGY AND EVOLUTIONARY BIOLOGY

2004 - 2008

• Advisor: Ingrid M. Parker

Professional Experience

Currently **Science Lead**, Planet Labs PBC

2016-2022 **Co-Founder and CTO**, Salo Sciences

2009-2016 **Research Ecologist**, Carnegie Institution for Science

Publications

Anderson, C. B. (2023). *elapid*: Species distribution modeling tools for Python. *Journal of Open Source Software*

Langhans, K. E., Echeverri, A., Daws, S. C., Moss, S. N., **Anderson, C. B.**, Chaplin-Kramer, R., Hendershot, J.N., Liu, L., Mandel, L., Nguyen, O. Ou, S.X., Remme, R. P., Schmitt, R. J. P., Vogl, A., & Daily, G. C. (2023). Centring justice in conceptualizing and improving access to urban nature. *People and Nature*

Langhans, K. E., Schmitt, R. J., Chaplin-Kramer, R., **Anderson, C. B.**, Bolaños, C. V., Cabezas, F. V., Dirzo, R., Goldstein, J.A., Horangic, T., Granados, C.M., Powell, T.M., & Daily, G. C. (2022). Modeling multiple ecosystem services and beneficiaries of riparian reforestation in Costa Rica. *Ecosystem Services*

Echeverri, A., Smith, J. R., MacArthur-Waltz, D., Lauck, K. S., **Anderson, C. B.**, Monge Vargas, R., Alvarado Quesada, I., Wood, S., Chaplin-Kramer, R., & Daily, G. C. (2022). Biodiversity and infrastructure interact to drive tourism to and within Costa Rica. *PNAS*

Shocket, M. S., **Anderson, C. B.**, Caldwell, J. M., Childs, M. L., Couper, L. I., Han, S., Harris M. J., Howard M. E., MacDonald A. J., Nova N. & Mordecai, E. A. (2021). Environmental drivers of vector-borne disease. *Population biology of vector-borne diseases*, Oxford University Press

Hendershot, J. N., Smith, J. R., **Anderson, C. B.**, Letten, A. D., Frishkoff, L. O., Zook, J. R., Fukami, T., & Daily, G. C. (2020). Intensive farming drives long-term shifts in avian community composition. *Nature*

Bratman, G. N., **Anderson, C. B.**, Berman, M. G., Cochran, B., De Vries, S., Flanders, J., Folke, C., Frumkin, H., Gross, J. J., Hartig, T., Kahn Jr., P. H., Kuo M., Lawler, J. J., Levin, P. S., Lindahl, T., Meyer-Lindenberg, A., Mitchell, R., Ouyang, Z., Roe, J., Scarlett, L., Smith, J. R., van den Bosch, M., Wheeler, B. W., White, M. P., Zheng, H. & Daily, G.C. (2019). Nature and mental health: An ecosystem service perspective. *Science advances*

Ramirez-Reyes C., Brauman, K. A., Chaplin-Kramer, R., Galford, G. L., Adamo, S. B., Anderson, C. B., **Anderson, C. B.**, Allington, G. R. H., Bagstad, K. J., Coe, M. T., Cord, A. F., Dee, L. E., Gould, R. K., Jain, M., Kowal, V. A., Muller-Karger, F., Norriss J., Potapov, P., Qiu J., Rieb J. T., Robinson, B. E., Samberg, L. H., Singh, N., Szeto, N. H., Voigt, B., Watson, K., Wright, T. M. (2019). Reimagining the potential of earth observations for ecosystem services assessments. *Science of the Total Environment*

Anderson, C. B. (2018). Biodiversity monitoring, earth observations and the ecology of scale. *Ecology Letters*

Anderson, C. B. (2018). The CCB-ID approach to tree species mapping with airborne imaging spectroscopy. *PeerJ*

Smith, J. R., Letten, A. D., Ke, P. J., **Anderson, C. B.**, Hendershot, J. N., Dhimi, M. K., Dlott, Glade A., Grainger, T. N., Howard, M. E., Morrison, B. M. L., Routh, D., San Juan, P. A., Mooney, H. A., Mordecai, E. A., Crowther, T. W., & Daily, G. C. (2018). A global test of ecoregions. *Nature Ecology and Evolution*

- Asner, G. P., Martin, R. E., Knapp, D. E., Tupayachi, R., **Anderson, C. B.**, Sinca, F., Vaughn, N. R., & Llactayo, W. (2017). Airborne laser-guided imaging spectroscopy to map forest trait diversity and guide conservation. *Science*
- Asner, G. P., Martin, R. E., **Anderson, C. B.**, Kryston, K., Vaughn, N., Knapp, D. E., Bentley, L. P., Shenkin, A., Salinas, N., Sinca, F., Tupayachi, R., Quispe Huaypar, K., Montoya Pillco, M., Cori Álvarez, F. D., Díaz, S., Enquist, B. and Malhi, Y. (2017), Scale dependence of canopy trait distributions along a tropical forest elevation gradient. *New Phytologist*
- Asner, G. P., Knapp, D. E., **Anderson, C. B.**, Martin, R. E., Vaughn, N. (2016). Large-scale climatic and geophysical controls on the leaf economics spectrum. *PNAS*
- Graves, S. J., Asner, G. P., Martin, R. E., **Anderson, C. B.**, Colgan, M. S., Kalantari, L., & Bohlman, S. A. (2016). Tree Species Abundance Predictions in a Tropical Agricultural Landscape with a Supervised Classification Model and Imbalanced Data. *Remote sensing*
- Barbosa, J. M., Sebastián González, E., Asner, G. P., Knapp, D. E., **Anderson, C. B.**, Martin, R. E., & Dirzo, R. (2016). Hemiparasite–host plant interactions in a fragmented landscape assessed via imaging spectroscopy and LiDAR. *Ecological Applications*
- Asner, G. P., Brodrick, P. G., **Anderson, C. B.**, Vaughn, N., Knapp, D. E., & Martin, R. E. (2016). Progressive forest canopy water loss during the 2012–2015 California drought. *PNAS*
- Baldeck, C. A., Asner, G. P., Martin, R. E., **Anderson, C. B.**, Knapp, D. E., Kellner, J. R., & Wright, S. J. (2015). Operational tree species mapping in a diverse tropical forest with airborne imaging spectroscopy. *PloS One*
- Asner, G. P., **Anderson, C. B.**, Martin, R. E., Tupayachi, R., Knapp, D. E., & Sinca, F. (2015). Landscape biogeochemistry reflected in shifting distributions of chemical traits in the Amazon forest canopy. *Nature Geoscience*
- Somers, B., Asner, G. P., Martin, R. E., **Anderson, C. B.**, Knapp, D. E., Wright, S. J., & Van De Kerchove, R. (2015). Mesoscale assessment of changes in tropical tree species richness across a bioclimatic gradient in Panama using airborne imaging spectroscopy. *Remote Sensing of Environment*
- Taylor, P., Asner, G., Dahlin, K., **Anderson, C. B.**, Knapp, D., Martin, R., Mascaro, J., Chazdon, R., Cole, R., Wanek, W., Hofhansl, F., Malavassi, E., Vilchez, B., & Townsend, A. (2015). Landscape-scale controls on aboveground forest carbon stocks on the Osa Peninsula, Costa Rica. *PloS One*
- Higgins, M. A., Asner, G. P., **Anderson, C. B.**, Martin, R. E., Knapp, D. E., Tupayachi, R., Perez, E., Elespuru, N., & Alonso, A. (2015). Regional-scale drivers of forest structure and function in northwestern Amazonia. *PloS One*
- Asner, G. P., Martin, R. E., **Anderson, C. B.**, & Knapp, D. E. (2015). Quantifying forest canopy traits: Imaging spectroscopy versus field survey. *Remote Sensing of Environment*
- Asner, G. P., Knapp, D. E., Martin, R. E., Tupayachi, R., **Anderson, C. B.**, Mascaro, J., Sinca, F., Chadwick, K.D., Higgins, M.A., Farfan, W., Llactayo, W., & Silman, M. R. (2014). Targeted carbon conservation at national scales with high-resolution monitoring. *PNAS*
- Marvin, D. C., Asner, G. P., Knapp, D. E., **Anderson, C. B.**, Martin, R. E., Sinca, F., & Tupayachi, R. (2014). Amazonian landscapes and the bias in field studies of forest structure and biomass. *PNAS*
- Asner, G. P., Martin, R. E., Carranza-Jiménez, L., Sinca, F., Tupayachi, R., **Anderson, C. B.**, & Martinez, P. (2014). Functional and biological diversity of foliar spectra in tree canopies throughout the Andes to Amazon region. *New Phytologist*
- Higgins, M. A., Asner, G. P., Martin, R. E., Knapp, D. E., **Anderson, C. B.**, Kennedy-Bowdoin, T., Saenz, R., Aguilar, A. & Wright, S. J. (2014). Linking imaging spectroscopy and LiDAR with floristic composition and forest structure in Panama. *Remote Sensing of Environment*
- Asner, G. P., Martin, R. E., Tupayachi, R., **Anderson, C. B.**, Sinca, F., Carranza-Jiménez, L., & Martinez, P. (2014). Amazonian functional diversity from forest canopy chemical assembly. *PNAS*.
- Asner, G. P., **Anderson, C. B.**, Martin, R. E., Knapp, D. E., Tupayachi, R., Sinca, F., & Malhi, Y. (2014). Landscape-scale changes in forest structure and functional traits along an Andes-to-Amazon elevation gradient. *Biogeosciences*
- Mascaro, J., Asner, G. P., Knapp, D. E., Kennedy-Bowdoin, T., Martin, R. E., **Anderson, C. B.**, Higgins, M., & Chadwick, K. D. (2014). A tale of two “forests”: Random Forest machine learning aids tropical forest carbon mapping. *PLoS One*
- Asner, G. P., Kellner, J. R., Kennedy-Bowdoin, T., Knapp, D. E., **Anderson, C. B.**, & Martin, R. E. (2013). Forest canopy gap distributions in the southern Peruvian Amazon. *PloS One*
- Asner, G. P., Mascaro, J., **Anderson, C. B.**, Knapp, D. E., Martin, R. E., Kennedy-Bowdoin, T., van Breugel, M., Davies, S., Hall, J.S., Muller-Landau, H.C., Potvin, C., Souza, W., Wright, S.J. & Bermingham, E. (2013). High-fidelity national carbon mapping for resource management and REDD+. *Carbon Balance and Management*

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Science Community

PEER REVIEW

American Journal of Botany

Biogeosciences

BMJ Global Health

Climate

EcoHealth

Forests

Journal of Ecology

Frontiers in Forests and Global Change

Nature Communications

PNAS

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