

Christopher B. Anderson, PhD.

BIOGEOGRAPHY · REMOTE SENSING · FOREST CARBON · ECOSYSTEM SERVICES

✉ christopher@planet.com | 🏠 cbanderson.info | 🌐 earth-chris | 📺 christopher-b-anderson

Education

Stanford University

PHD, BIOLOGY

• Advisor: Gretchen C. Daily

Stanford, CA, USA

2016 - 2020

University of California, Santa Cruz

BS, ECOLOGY AND EVOLUTIONARY BIOLOGY

• Advisor: Ingrid M. Parker

Santa Cruz, CA, USA

2004 - 2008

Professional Experience

2023+ **Lead Scientist, Forest Ecosystems**, Planet Labs PBC

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

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

Publications

Anderson, C. B. (2025). Designing Multi-Modal Ecosystem Monitoring Technologies: A Network of Networks Approach. *EcoEvoRxiv*

Farner, J. E., Howard, M., Smith, J. R., **Anderson, C. B.**, & Mordecai, E. A. (2025). Local tree cover predicts mosquito species richness and disease vector presence in a tropical countryside landscape. *Landscape Ecology*

Sothe, C., McCarthy, R., & **Anderson, C. B.** (2024). An Unsupervised Approach to Build a Training Dataset for Individual Tree Crown Delineation Using Airborne Lidar and Field Observations. *International Geoscience and Remote Sensing Symposium 2024*

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., Mandle, L., Nguyen, O. O., 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., Riebel, 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., Dhami, 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*
- Asner, G. P., Knapp, D. E., Boardman, J., Green, R. O., Kennedy-Bowdoin, T., Eastwood, M., Martin, R.E., **Anderson, C. B.**, & Field, C. B. (2012). Carnegie Airborne Observatory-2: Increasing science data dimensionality via high-fidelity multi-sensor fusion. *Remote Sensing of Environment*
- Asner, G. P., Martin, R. E., Knapp, D. E., Tupayachi, R., **Anderson, C. B.**, Carranza, L., Houcheime, M., Sinca, F., & Weiss, P. (2011). Spectroscopy of canopy chemicals in humid tropical forests. *Remote Sensing of Environment*

Science Community

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American Journal of Botany
Biogeosciences
BMJ Global Health
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Journal of Ecology
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