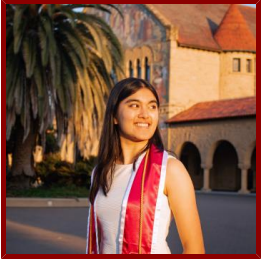


# Stanford

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## Maya Emily Xu

- Bachelor of Science, Honors, Biology with Honors
- Masters Student in Biology, admitted Autumn 2022
- Minor, Education
- Stanford Student Employee, Biology

### Bio

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#### BIO

I'm an undergraduate ('25) and coterminal masters student majoring in biology (concentrating in ecology, evolution and environment). I previously completed a minor in education, a Notation for Science Communication, and will co-instruct BIO 121/221 (Ornithology) for the third time this spring.

Broadly, I'm interested in three main topics (which all have to do with birds!): 1) how birds can be used as indicator or sentinel species for environmental disturbance; 2) how interactions between humans and birds are shifting thanks to gradients of anthropogenic change; and 3) how these interactions can be shaped to better promote wider ecological health and beneficial services. I'm currently in the middle of a year-long study with Marty Freeland, funded by Jasper Ridge Biological Preserve's ('Ootchamin 'Ooyakma) (JROO) Mellon Grant, to compare the riparian bird communities at JROO and TomKat Ranch using three different survey methodologies (in-person transects, passive acoustic monitoring, and mob tape deployments). I'm also working closely with the San Francisco Bay Bird Observatory (SFBBO), where I volunteer as a bird banding trainee, and the Stanford SIGMA lab to quantify heavy metal contamination in the feathers of songbirds caught at the bird banding stations in JROO and the SFBBO's main station in Milpitas.

I previously conducted my senior honors thesis on how heavy metals affect raptors on the North American Pacific coast. My primary study species were the peregrine falcons (*Falco peregrinus*) breeding on top of Stanford University's Hoover Tower, and the golden eagles (*Aquila chrysaetos*) breeding at JROO, where I'm a docent and former avian transect leader.

#### LINKS

- Link to my Dirzo lab webpage: <https://dirzolab.stanford.edu/author/mxu37/>
- Current funded research: <https://jrpbp.stanford.edu/research/projects/comparing-bird-survey-methodologies-jasper-ridge-biological-preserve-ootchamin>

### Teaching

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#### COURSES

2023-24

- Ornithology: BIO 121, BIO 221 (Spr)

### Publications

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#### PUBLICATIONS

- **Urban community gardens foster positive human-avian interactions across an income gradient in San Francisco** *LANDSCAPE AND URBAN PLANNING*

Langhans, K. E., Echeverri, A., Xu, M., Callahan, M., Li Palmeri, M., Nguyen, O., Ardoin, N. M., Daily, G. C.  
2025; 261

- **Global decline of apex scavengers threatens human health.** *Proceedings of the National Academy of Sciences of the United States of America*  
Sonawane, C., Xu, M., Ward, N., Chichilnisky du Lac, A., Kamets, B., Dirzo, R.  
2025; 122 (25): e2417328122