

2022 SMBE Satellite Workshop on Urban Evolutionary and Ecological ‘Omics

Organization and Financial Report

Steering Committee: (see “Proposal”; we have provided this info again as affiliations have changed)

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Change in timeline and venue

Our two-day SMBE Workshop entitled “Urban Evolutionary and Ecological ‘Omics” was originally planned for Montreal, Canada in October 2022 as a follow-up to a National Science Foundation (NSF) funded international annual meeting (see “Proposal”). This strategy was designed to take advantage of the presence of several individuals at the annual NSF meeting who would also be interested in our “genomics” workshop. Unfortunately, because of rises in COVID, in March 2022 it was announced that the NSF meeting in October 2022 was postponed to February 2023. The good news was that we had not yet advertised for our SMBE workshop. Thus, we worked quickly to identify another venue, while at the same time recognizing that the benefits we had originally proposed (reduced travel, saving costs, piggy-backing on a physical meeting space) were gone, and funds would be tight.

We chose the greater Washington, D.C. area and targeted November 4-5, 2022, as our new workshop dates. This geographic area was chosen because it (1) has multiple accessible international airports, (2) has a user-friendly Metro train, (3) has a high density of affordable combined lodging and meeting space venues, with many food and beverage options, and lastly, (4) is very familiar to and in close proximity (~2 hrs drive) to Richmond (VA) and Dr. Verrelli, who would lead the effort and need to visit often for planning purposes. The Hilton Arlington (see “Agenda”) provided the lowest bid of three venues consulted for estimates of discounted blocks of 3 nights of lodging (Nov 3-5, \$129.99 + taxes, per night) plus 2 days of meeting space (Nov 4-5, \$1320.04 including taxes and fees, see Table 1) for ~40 attendees (consistent with “Proposal”) in a ballroom quietly isolated on the Mezzanine Level.

Recruitment and attendees

Starting June 1, 2022, we recruited through online resources (e.g., evoldir), social media (e.g., Twitter), the SMBE website, and word-of-mouth (e.g., targeted individuals via email). As stated in our proposal, we aimed for diversity across sex, demographic, geographic, and ethnic backgrounds, as well as career stage. While inclusive for these criteria, we were very clear in our ad that this workshop was not going to invite speakers for a series of “talks”. It stated the goal from our proposal “**to bring together individuals from the rapidly growing field of urban evolutionary ecology with molecular and genome evolutionary biologists for presentations and break-out discussion groups.**” Applicants were asked to fill out a Google survey that requested a short (~200 words) statement as to how they would contribute to the workshop in urban evolutionary and ecological genomics, and asked if there was information we should consider in recruiting diversity. We also informed attendees that lodging would be covered 100%, but that travel costs would be on a “need basis”, prioritizing early career researchers (graduate students and postdocs) and international travelers. These criteria attracted highly-qualified applicants, and from a pool of 43, we declined only 5, with a final list of 35 attendees (see “Attendees”).

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We provided extensive communication and anonymous pre-workshop questionnaires (Google surveys) over the next few months, especially regarding COVID safety protocols. We focused on “voluntary” measures, i.e., masks, vaccines, and tests were not required, but highly supported if desired (e.g., we left individually-packaged KN95 masks on tables both days, see Table 1). Although initially contemplated, we did not provide “hybrid” opportunities, as our committee had seen multiple small meetings (i.e., not large conferences) this past year compromised by individuals in-person and on Zoom not being able to communicate. We needed people moving around interactively for two days. Despite extensive recruitment, only 8 of our 35 attendees were outside of the USA. It is very important to note that this was not the result of funding issues as we provided 100% funds to anyone outside the USA; instead, several individuals understandably noted they did not want to travel far during what was the height of new COVID variants in summer/fall 2022. **That said, all of the measures in place resulted in us losing no attendees through the entire process, and comments from our anonymous post-workshop questionnaire praised our communication and determination to have us all meet “in-person” after these isolating years of COVID.** Our group was 19% postdocs, 25% graduate students, and 56% faculty (half untenured), with overall 58% female, and overall 35% identifying with another underrepresented group (ethnicity, disability, LGBTQ). Based on this breakdown, we were able to provide lodging funds to all 35 attendees and travel funds to all graduate students, postdocs, and international attendees; 9 faculty volunteered to cover their travel costs (Table 1).

Workshop structure

We conversed entirely using “unconferencing”, which enables attendees to bring ideas forward instead of topics set *a priori*. We provided a pre-workshop questionnaire a month in advance that asked attendees to rank their preference of discussion on grant proposals, data collection, data analysis, manuscript writing, and mentoring activities. After some opening remarks on our “code of conduct” (which communicated our stance on zero harassment), a short background on urban evolutionary ecology and genomics, and discussion on one of the proposed deliverables in writing a “perspective” piece for MBE, we moved to “unconferencing” (see “Agenda”). Attendees placed topics on white boards and voted for topics they wanted to discuss, after which we carried out iterative 45-minute breakouts having concurrent groups with as few as 5 to as many as 15 individuals in each. We shared a Google sheet post-workshop that has a page for each breakout topic, where people can see the notes and sign up to collaborate further, even if they did not have a chance to visit that breakout during the two days. **This structure received great praise in post-workshop questionnaires as it provided: inclusion where grad students felt as comfortable as faculty, attendee-driven activity and creativity, and open-ended results with no pressure.** Our questionnaire found that 90% of responses (n=20) would attend the workshop again, with the remaining 10% saying “maybe”.

Table 1. Summary of expenditures

expense	cost (USD)
travel/lodging (35 attendees)	25187.13
Hilton A/V (2 days)	3243.50
Hilton ballroom (2 days)	1320.04
STAPLES misc	181.26
masks (n=100)	174.89
misc food	97.20
sum	30204.02

To facilitate our active environment, we brought with us our own digital projector (Hilton rental for two days was more), a laptop with image-capturing software, with Hilton-rented hand-held microphones, multiple high-quality speakers, and 6 large whiteboards to be highly “mobile” (see A/V + STAPLES misc costs, Table 1). Two weeks after the workshop we had collected receipts and processed reimbursements at Virginia Commonwealth University (VCU) for the 35 attendees, and have our estimated finances at ~\$30K (Table 1). In addition to the \$28K budget provided by SMBE, we secured funding from VCU institutional resources to cover the ~\$1200 estimated deficit. Despite the changes in venue and timeline as a result of COVID, we were able to cover all costs of the workshop except for travel for a handful of faculty. In this respect, we surpassed our proposal from a fiscal perspective, while maintaining the same goals and number of attendees.

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Scientific Report

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Scientific Report

The goal of our two-day Satellite Workshop on Urban Evolutionary and Ecological ‘Omics, as started in our Proposal, was **“to bring together individuals from the rapidly growing field of urban evolutionary ecology with molecular and genome evolutionary biologists for presentations and break-out discussion groups.”** In organizing individuals from these multiple disciplines, our breakout groups over two days followed an on-going trend of “unconferencing” where instead of planned “talks”, attendees could pitch topics to the group of 35 attendees at any time, and 90-minute informal discussion sessions took place depending on who was interested (we had as few as 5 and as many as 15 individuals at individual sessions).

The breakout sessions covered everything from technologies and methods, taxon-specific solutions, fundamental issues in urban ecology and evolution, and sociopolitical dimensions. All sessions integrated the potential use of “omics”, such as genomes, transcriptomes, and epigenomes, in single species or population level analyses to address urban evolutionary ecology questions. Some urban topics were as broad as adaptation, climate change, and sociocultural outreach to more specific topics such as the role of insecticides on urban biodiversity, the relationship between domestication and commensalism, and whether and how urban pollutants impact mutation. These sessions, some of which were repeated over the two days due to higher interest or desire to continue conversation, took place iteratively over the two days. The outcomes of these sessions ranged from planned perspective manuscripts and grant proposal outlines, to building collaborations for new data collection and analysis going forward.