

DOI: <https://doi.org/10.62015/np.2023.v29.772>**MULHERES PELA PRIMATOLOGIA: A BRAZILIAN SOCIAL MOVEMENT PROMOTING WOMEN IN SCIENCE AND PRIMATE CONSERVATION****Marianne Bello^{1,2}, Priscila do Carmo de Oliveira¹, María Fernanda De la Fuente^{1,3*}, Laura Romano Vieira¹, Milena Bezerra de Souza^{1,4}, Adrielle Marins Cezar^{1,5}, Fernanda Oliveira e Silva Monteiro¹, Jessika Gabriel de Albuquerque^{1,6}, Patricia Palmeira Bellon^{1,7}, Mikaelly Frasson Testa^{1,8}, Zelinda Maria Braga Hirano⁹, Carla Soraia Soares de Castro¹⁰, Raiane dos Santos Guidi^{1,11}**¹ *Mulheres pela Primatologia, Brazil*² *Programa de Pós-graduação em Ecologia e Evolução, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil*³ *Programa de Pós-graduação em Etnobiologia e Conservação da Natureza, Universidade Estadual da Paraíba, Campina Grande, Paraíba, Brazil. E-mail: <ferni211@yahoo.com.br>*⁴ *Programa de Pós-graduação em Ciências de Animais de Laboratório, Instituto de Ciência e Tecnologia em Biomodelos, ICTB/Fiocruz, Rio de Janeiro, Rio de Janeiro, Brazil*⁵ *Programa de Pós-Graduação em Biodiversidade e Biologia Evolutiva, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*⁶ *Universidade Estadual da Paraíba, Campina Grande, Paraíba, Brazil*⁷ *Universidade Federal do Espírito Santo, Vitória, Espírito Santo, Brazil*⁸ *Muriqui Instituto de Biodiversidade, Lima Duarte, Minas Gerais, Brazil*⁹ *Projeto Bugio, Centro de Pesquisas Biológicas de Indaial, Universidade Regional de Blumenau, Blumenau, Santa Catarina, Brazil*¹⁰ *Departamento de Engenharia e Meio Ambiente, Programa de Pós-graduação em Ecologia e Monitoramento Ambiental, Universidade Federal da Paraíba, Rio Tinto, Paraíba, Brazil*¹¹ *Instituto Espaço Silvestre, Florianópolis, Santa Catarina, Brazil***Abstract**

Mulheres pela Primatologia (Women for Primatology) is a Brazilian social movement in support of women in science and the conservation of non-human primates. Activities occur through collaborative and interdisciplinary communication of women scientists of different ages, regions and origins. The objectives of the movement are to discuss gender equity, encourage representation in science, emphasize the importance of women's role in primatology, and inspire other women to enter into scientific careers. The movement's activities began in June 2021 with the creation of an Instagram profile that published information about women in science, primates, the representation of women, the history of women in primatology, interviews with distinguished primatologists, and events, among others. The activities presented here were developed between June 2021 and August 2022. As of August 2022, the profile @mulherespelaprimatologia had 2,349 followers, 126 publications and 2,044 comments, reaching 8,645 accounts, with 5,479 interactions recorded. *Mulheres pela Primatologia* is linked to the Jane Goodall Institute's Roots & Shoots' international network. In March 2022, the Youtube channel was created to broadcast three online events, with both young and established primatologists. *The Guia Primatólogas do Brasil* (Guide to Brazilian Women Primatologists) was created to democratize access to contact with women primatologists working in Brazil as advisors in graduate programs. The first edition of the guide featured 25 primatologists whose areas of expertise are behavior, ecology, conservation, physiology, ethnozoology, genetics, and environmental education. The performance and actions of *Mulheres pela Primatologia* have resulted in diverse products that range from scientific dissemination to support and encouragement for young primatologists, reinforcing women's empowerment in primatology.

Keywords: conservation, women scientists, women empowerment**Resumo**

Mulheres pela Primatologia é um movimento social brasileiro de apoio às mulheres na ciência e à conservação dos primatas não humanos. As atividades ocorrem por meio da comunicação colaborativa e interdisciplinar de mulheres cientistas de diferentes idades, regiões e origens. Os objetivos do movimento são discutir a equidade de gênero, incentivar a representação das mulheres na ciência, enfatizar a importância do papel da mulher na primatologia e inspirar outras

mulheres a ingressar na carreira científica. As atividades começaram em junho de 2021 com a criação de um perfil no Instagram que publica informações sobre mulheres na ciência, primatas, representação feminina, história da mulher na primatologia, entrevistas com primatólogas ilustres, eventos, entre outros. As atividades aqui apresentadas foram desenvolvidas entre junho de 2021 e agosto de 2022. Em agosto de 2022, o perfil @mulherespela primatologia conta com 2.349 seguidores, 126 publicações e 2.044 comentários, alcançando 8.645 contas, com 5.479 interações registradas. *Mulheres pela Primatologia* está vinculado à rede internacional Roots & Shoots do Instituto Jane Goodall. Em março de 2022, foi criado o canal do Youtube para a transmissão de três eventos online, com a participação de primatólogas jovens e consolidadas. O *Guia Primatólogas do Brasil* foi criado para democratizar o acesso a mulheres primatólogas que trabalham no Brasil como orientadoras em Programas de Pós-Graduação. A primeira edição do guia traz 25 primatólogas com atuação nas áreas de comportamento, ecologia, conservação, fisiologia, etnozootologia, genética e educação ambiental. A atuação e as ações do *Mulheres pela Primatologia* têm resultado em diversos produtos que vão desde a divulgação científica até o apoio e incentivo a jovens primatólogas, reforçando o empoderamento feminino na primatologia.

Palavras-chave: conservação, mulheres cientistas, empoderamento feminino

Introduction

Gender disparity is related to historical structural and cultural factors, including chauvinism, sexism, stereotypes, and other barriers that limit the opportunities for professional integration and ascension of women scientists (Ferreira and Machado, 2022), which influence their professional careers beginning with the initial elementary school years (Bian et al., 2017). Inequality between men and women in terms of access to resources and participation in different areas emerges as a result of discriminatory ideologies, such as racism, misogyny and transphobia, that can act as deterrents, reinforce oppressive structures and exclude underrepresented groups (Diele-Viegas et al., 2021). Because of misogyny, there are countless reports documenting unpleasant episodes experienced by women scientists, affecting all academic levels from students, to researchers and teachers (Avolio et al., 2020). Furthermore, other factors such as motherhood, the overload of household chores, all sorts of harassment, lower research funding, and implicit recommendation and hiring biases are obstacles to women's permanence in science (Eaton et al., 2020; Morgan et al., 2021; Zandonà, 2022). This is evident from the scrutiny of male-biased leadership positions in universities, scientific institutions, and on editorial boards of scientific journals (Diele-Viegas et al., 2022).

Racism, sexism, classism and xenophobia combine to create harmful barriers between women from different social, ethnic and cultural backgrounds. Most of the population in Brazil (54%) is Afro-Brazilian (composed of black and mixed race people) and amongst them, 28% of Brazilians are Afro-Brazilian women (IBGE, 2010). Therefore, Afro-Brazilian women are the largest population group in Brazil but according to the National Council for Scientific and Technological Development (CNPq) (Ferreira, 2018), they represent only 3% of Brazilian scientists (professors in graduate programs) and share the worst rates of social inequality, illiteracy, femicide and underemployment (IBGE, 2010). Furthermore,

while the majority of Brazilian women over 25 years old have a higher education (57%), these educated individuals are disproportionately white (72%) (IBGE, 2010). In addition, there is a drastic decline in the proportion of women in academia throughout the scientific career. This “scissors effect” phenomenon, in which the proportion of women decreases throughout career progression while the proportion of men increases, is observed in several countries around the world (Bezerra et al., 2019).

In addition, it is important to consider how the socio-political and economic context of Brazil and low governmental investment in science and technology have also affected the academic emergence of young female scientists. For example, Dr. Karen Strier (2019) reported that at the beginning of her field research with the northern muriquis (*Brachyteles hypoxanthus*), access to research funds was much harder to obtain in Brazil than in the U.S. Thus, she perceived how her Brazilian colleagues suffered from the lack of financial incentive, the scarcity of available scientific literature, and the high cost of field and research equipment. By observing these inequalities in access to resources, besides providing field training to the students who joined the Muriqui Project, Dr. Strier also provided support for their living expenses, equipment, supplies, and access to literature. Currently, this project is the largest long-term study internationally recognized both for the work on muriqui society, as well as for the training of human resources due to the numerous primatologist collaborators who were formed through their research on this project (Strier, 1987, 1999, 2000; Strier & Boubli, 2006).

In view of this situation, in June 2021, Mikaelly Frasson Testa (veterinarian), with the support of Priscila do Carmo de Oliveira (biologist), conceived the idea of *Mulheres pela Primatologia* (MPP; in English: Women for Primatology), a Brazilian social movement for the representation of women in science and the conservation of non-human primates. The movement's actions occur through scientific dissemination and collaborative

communication between interdisciplinary women scientists. On June 7, 2021, MPP was established through the creation of the Instagram profile @mulherespelaprimatologia. Its main objectives are: i) to discuss gender equity and encourage the representation of women in science; ii) to emphasize the importance of women's role in primatology, and iii) to support and inspire women to enter into scientific careers. The aim of this review is to describe the creation and on-going activities of the *Mulheres pela Primatologia* movement, providing information regarding its reach in social media and products developed. The activities presented here were developed between June 2021 and August 2022.

Creation of *Mulheres pela Primatologia*

The MPP team was formed through two online selection processes on the @mulherespelaprimatologia Instagram profile held on June 14, 2021, and April 4, 2022, respectively. The selection processes totaled 71 applications from women and, eventually, 24 of them were selected to be part of the team, of which four left the movement for personal reasons. The profiles were selected according to the needs of the movement's activities. Applications were from undergraduates or professionals whose areas of expertise were Biological Sciences, Veterinary Medicine, Ecology, and Animal Science. Applications were received from all 26 Brazilian states (except Mato Grosso) and the Federal District. As of August 2022, the movement is composed of 22 cisgender women (Table 1) between 22 and 37 years old. Of these members, 77.3% (N = 17) self-declared themselves white, followed by 13.6% (N = 3) self-declared *pardo* (mixed race), and 9.1% (N = 2) self-declared black. According to the Brazilian Institute of Geography and Statistics (IBGE, 2010), skin color and race categories in Brazil are white (*branco*), black (*preto*), mixed race (*pardo*), Asian (*amarelo*), and indigenous (*indígena*). *Pardo* is a Brazilian term that represents a range of ethnic and skin colors with tones darker than white and lighter than black. The members are distributed in three regions of Brazil: Southeast (76.2%), Northeast (19.0%), and South (4.8%). Fourteen (66.7%) are heterosexual and

seven (33.3%) are bisexual. In addition, two of the movement members (9.5%) are mothers.

Mulheres pela Primatologia values diversity by (i) developing a critical awareness and feminist education through study groups that include the discussion of key issues such as minority groups in science, for the exchange of knowledge and personal experiences; (ii) breaking the menstrual taboo in field studies; (iii) building a support network by and for women from different backgrounds and career levels; and (iv) inviting women from different regions of Brazil to present their research and inspire future generations in primatology. With the present review, we aim to encourage women of all skin colors and races, all sexual orientations and/or gender identities, as well as women with disabilities, from different regions of Brazil, to build new narratives within the movement.

Social Media

Instagram (www.instagram.com) is a dynamic and fluid social media platform, based on the posting of photos and short videos, usually up to one minute that makes it possible to share information in a visual and interactive way. The profile @mulherespelaprimatologia produces informative publications about a wide range of subjects including women in science and primates, pointing out issues related to women's representation in primatology, ethical work conduct, mental and physical health, the history of women in primatology, dissemination and visibility of projects led by women, interviews with distinguished primatologists, events organized by MPP, recommendations for documentaries and books, among others. The art in these publications is developed using the online graphic design tool Canva (www.canva.com). The data presented here were collected using Instagram insights.

As of August 2022, the profile has 126 publications, with a total of 2,044 comments, 3,224 shares, and 17,415 likes. The publications with the highest number of accounts reached, likes, comments, and shares are about tips for

Table 1. *Mulheres pela Primatologia* movement members in August 2022, their entry selection process dates, and roles (1: Coordination; 2: Social media; 3: Event organization; 4: Development of the Guide to Brazilian Women Primatologists; 5: Scientific production; 6: Gender study group; 7: Educational production; 8: #exaltaasmanas; 9: Financial accounting).

Entry selection process date	Names and roles of MPP members
Founders	Mikaelly Frasson Testa ^{1,2,5,9} ; Priscila do Carmo de Oliveira ^{1,3,5,6,8}
June 14, 2021	Fernanda Oliveira e Silva Monteiro ^{1,2,5,7} ; Gabriela Amorim Carvalho ^{2,8} ; Gleyzieli da Silva Frazão ³ ; Jessika Gabriel de Albuquerque ³ ; Larissa Calais Paiva ^{2,8} ; Larissa Vaccarini Ávila ^{2,3,6} ; Laura Romano Vieira ^{2,4,5,6} ; Marianne Bello ^{1,4,5,6,8} ; Milena Bezerra de Souza ^{3,5,6} ; Raiane dos Santos Guidi ^{1,2,3,4,5,6} ; Vitória Fernandes Nunes ^{1,2}
April 23, 2022	Adrielle Marins Cezar ^{2,5,6} ; Beatriz Codogno ⁷ ; Carlene Gomes Rodrigues ⁶ ; Hallana Couto e Silva ³ ; María Fernanda De la Fuente Castellón ^{5,6,7} ; Marina Pellegrino da Silva ⁸ ; Patricia Palmeira Bellon ^{2,5,6} ; Sofia Bernal-Valle ³ ; Viviane Sodré Moura ^{2,3}



Figure 1. Publications, from June 2021 to August 2022, of the @mulherespelaPrimatologia Instagram profile with the highest metrics in (A) accounts reached: Tips for fieldwork during the menstrual period; (B) likes: Tips on clothes to be used in the field; (C) comments: Raffle for a free registration in the Management of *Ex-situ* Primates event; and (D) shares: The history of women in primatology and women empowerment.

Table 2. Publications with the three highest metrics of accounts reached, likes, comments, and shares on the @mulherespelaPrimatologia Instagram profile, from June 2021 to August 2022.

Metrics	Number achieved	Publication topic
Accounts Reached	2,623	Tips for fieldwork during the menstrual period
	2,261	Indication of website with didactic material on primates
	2,225	The introduction of the MPP coordination team
Likes	555	Tips on clothes to be used in the field
	511	Tips for fieldwork during the menstrual period
	440	Primate projects to intern or volunteer
Comments	293	Raffle for free registration in the Management of <i>Ex-situ</i> Primates event
	86	Raffle for a free registration in the Primate Health event
	80	Raffle for a free registration in the Primatological Ecology event
Shares	226	The history of women in primatology and women empowerment
	167	Celebrating the International Day of Women and Girls in Science
	144	Male parental care in primates

Table 3. Self-declared gender, age, and country of residence of the followers (N = 2,349) of the *Mulheres pela Primatologia* Instagram profile (@mulherespelaPrimatologia), as of August 2022.

	Number (%) of MPP Instagram followers
<i>Gender (self-declared)</i>	
Female	1,952 (83.1)
Male	397 (16.9)
<i>Age (years)</i>	
18-24	705 (30)
25-34	1,061 (45.2)
35-44	407 (17.3)
+45	176 (7.5)
<i>Country of residence</i>	
Brazil	2,178 (92.7)
USA	29 (1.2)
Argentina	23 (1)
Colombia	17 (0.7)
Portugal	12 (0.5)
Other	90 (3.9)

women, events and informative posts (Figure 1, Table 2). According to the information provided by Instagram, in a period of 90 days between May 27 and August 24, 2022, 8,645 accounts were reached and 5,479 interactions were recorded with organically produced content. Moreover, Linktree (www.linktr.ee), an online service that allows gathering several links on a web page, which can be accessed through a link available in the Instagram bio, accounted for 741 views and 6,047 accesses to the profile's information. The MPP's Instagram profile has an audience of 2,349 followers, composed mainly of self-declared women, between the ages of 25 and 34 years, residents of Brazil and other countries (Table 3).

In February 2022, a partnership was established with the Instagram profile @shescience.podcast, which aims to promote reflections on the role of women in science and in the world. From this partnership, MPP adapted the framework #exaltaasmanas, aiming to disseminate the work of Brazilian primatologists. So far, 12 Brazilian primatologists and their work have been featured. Most of them (92%) are biologists or biologists in training and one (8%) is a veterinarian.

In addition, the MPP movement is linked to the Jane Goodall Institute's Roots & Shoots' international network (<https://www.rootsandshoots.org/>), a humanitarian education program that aims to generate a positive impact on human communities, animals, and the environment, in an integrated way. The program has the participation of 17 Latin American countries, as well as other countries around the world. The MPP is one of the five projects

operating in Brazil, being the only one that integrates both the women's cause and the environmental cause.

The use of social media as a tool for scientific dissemination allows access and dialogue regarding scientific content, not only among active professionals but also with other audiences, including future professionals (Navas et al., 2020). It is known that Instagram is highly popular in Brazil, according to the website Statista (www.statista.com), which has compiled data from several social media trends. Currently, there are approximately 119 million active Instagram users in Brazil. The audience reached so far by the profile @mulherespelaprimatologia is mostly women and young people, which is congruent with the profile of students and young scientists. In this way, it is possible to see the impact of social media goes well beyond its entertainment purpose in being an important tool in the formation of an engaged community with common goals, which in this case include, the dissemination of information about women in science and primate conservation.

Products

The movement produced three virtual events to promote scientific dissemination and support young women scientists to participate in the XIX Brazilian Congress of Primatology (in Portuguese: *Congresso Brasileiro de Primatologia - CBPrim*), through the video sharing website Youtube. The registration for each event cost R\$10 (equivalent to ~US\$2). The events were Primatological Ecology, Management of *Ex-situ* Primates, and Primate Health, in which experienced women primatologists and young primatologists, as well as some members of the MPP, participated as speakers. According to data collected on August 1, 2022, the channel "*Mulheres pela Primatologia*" on Youtube had 57 subscribers and the videos of these events totaled 473 views. The events took place from 19:00h to 22:30h on April 20, 2022, June 22, 2022, and July 13, 2022, respectively, totaling approximately 10:30 hours of duration. The videos of all the events were made openly available to the public, in order to disseminate information in a free and accessible way.

Data regarding the registered public (age, gender, country/state of residence, and educational institution) of the events were obtained through Google forms and compiled in Excel spreadsheets. Overall, 104 registrations were made from 88 participants aged between 19 and 60 years. Eighty-nine percent of the public were women. Most of the participants were studying or had a degree in Biological Sciences (70%), followed by Veterinary Medicine (24%), Animal Science (3%), Environmental Sciences (1%), Ecology (1%), and one participant from high school (1%).

The total amount of money collected from the registration of the three events was R\$1,040 (equivalent to ~US\$205). Seven women registered for the raffle to obtain support to participate in the XIX CBPrim. The money was allocated equally to a Ph.D. student of the Graduate Program in Animal Health and Production from the Federal Rural University of Amazon, and to an undergraduate student of Biological Sciences at the Federal University of Goiás.

Another product, the *Guia Primatólogas do Brasil* (in English, Guide to Brazilian Women Primatologists) was created to democratize access to contact with women primatologists working in Brazil as advisors in graduate programs. Compiling information regarding their areas of expertise and lines of research facilitates the search process for those who wish to be advised by women. The guide is available on the @mulherespelaprimatologia Instagram profile and aims to highlight and list women who are already advisors and work on scientific projects related to primates. The names of 50 women were gathered for composing the guide. The email addresses of 18 of them were found through an active online search and they were invited to participate. The previously invited primatologists suggested the other 32 women. The suggestion of names of other women was requested in the invitation. From these, the email addresses of six women could not be found online. Twenty-five of the 44 invited primatologists responded and agreed to participate in the guide. Three women responded after the guide's publication on June 12, 2022. Therefore, the guide was updated and republished on August 24, 2022.

Overall, the first volume of *Guia Primatólogas do Brasil* included 25 professionals, of which 14 (56%) were mothers, mostly of children and adolescents. Eighteen (72%) were biologists, five (20%) were veterinarians, one (4%) was an anthropologist, and one (4%) was a biomedical scientist. Their areas of expertise were categorized, and it is important to consider that a primatologist can work in several areas. The main categories identified were: behavior (56%), ecology (48%), conservation (40%), physiology (24%), ethnozoology (12%), genetics (4%), and environmental education (4%). Overall, 24 genera of primates researched by the primatologists were identified, the most commonly researched being: *Sapajus* (72%), *Callithrix* (52%), *Alouatta* (44%), *Leontopithecus* (44%), *Callicebus* (24%), and *Brachyteles* (24%). It is worth mentioning that some women did research on more than one genus.

Most primatologists included in the guide reside in Brazil, distributed across the following regions: Southeast (44%), Northeast (32%), South (8%), and North (4%). In addition, three (12%) primatologists reside in other countries, two in the United States and one in Spain, but work and advise students in Brazil. Of the women represented,

76% are university professors, 16% are researchers, and 8% work in Brazilian zoos. Five primatologists advise or co-advise students in the following countries: Germany, England, Spain, the United States, and Canada. As of August 24, 2022, the guide had been downloaded 116 times.

Considering that women are recurrent victims of harassment in universities, they were the guide's target audience. In Brazil, 67% of women have already suffered harassment in the university environment, reporting events of sexual, psychological, and moral violence (Instituto Avon, 2015). Being advised by a woman can reduce the chances of these events occurring, and bring feelings of comfort during a woman's professional trajectory. Harassment in the academic environment can lead to the withdrawal of women from a scientific career (FAPESP, 2017). Thus, to achieve the democratization of science, it is necessary to include actions protecting and supporting students in social policies.

Besides facing these challenges as students, the path for women to become graduate advisors and professors is complex. Usually, women are seen as not being as capable as men are in conducting research and advising students (Barbazon and Schulz, 2018). Moreover, women also face discrimination regarding motherhood, in which unequal parental care (in the case of women partnered with men), frequently causes them to reduce their academic productivity, and pause or quit their careers (Machado et al., 2019). Therefore, it is important to praise those who have achieved the privilege of being in a position to advise young researchers in order to inspire younger primatologists and demonstrate that it is possible to simultaneously be a woman, a mother, and have a successful career.

To spread the *Mulheres pela Primatologia* movement in primatology and science communities, three presentations were submitted and accepted for the XIX CBPrim held 27-31 August 2022, in the city of Sinop, state of Mato Grosso, Brazil. These included one oral presentation about the *Guia Primatólogas do Brasil*, one presentation in a symposium discussing social media, and one presentation at a round table focused on the role of women in primatology.

At just over one year old, MPP has already reached about 2,700 people who participate and follow the movement. MPP intends to continue to produce scientific knowledge and debate about women in primatology, increase the representation of women of all regions, ages, skin colors and races, sexual orientations, gender identities, and with disabilities within the movement, raise funds for subsidizing young women primatologists in science, promote environmental education actions and agroforestry practices led by women for the conservation of primates, and disseminate knowledge through social media, courses, workshops, lectures, and events. The movement intends to continue its efforts towards its

goals, reaching even more women around the world and working towards a primatology that considers the effects of different aspects such as race, class, and gender in an intersectional perspective to make science more diverse, equitable and inclusive.

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References

- Avolio, B., Chávez, J. and Vilchez-Román, C. 2020. Factors that contribute to the underrepresentation of women in science careers worldwide: a literature review. *Soc. Psychol. Educ.* 23: 773–794.
- Bezerra, G., Lazzaro, D., Peixoto, A., Lopes, M. M., Andrade, C. H., Lopes, H. J. N. and Barbosa, M. C. 2019. Female Researchers in Science in Brazil: the Scissors Effect. In: *La Brecha de Género en Matemática, Computación y Ciencias Naturales*, L. M. Montes and Dawson, S. P. (eds.), pp.55–67. S.P. Sociedad Mexicana de Física, Ciudad de México.
- Bian, L., Leslie, S. J. L. and Cimpian, A. 2017. Gender stereotypes about intellectual ability emerge early and influence children's interests. *Science* 355: 389–391.
- Diele-Viegas, L. M., Cordeiro, T. E. F., Emmerich, T. Hipólito, J., Queiroz-Souza, C., Sousa, E., Vancan, A. C. and Leite, L. 2021. Potential solutions for discrimination in STEM. *Nat. Hum. Behav.* 5: 672–674. <https://doi.org/10.1038/s41562-021-01104-w>.
- Diele-Viegas, L. M., de Almeida, T. S., Amati-Martins, I., Bacon, C. D., Silva, C. C., Collevatti, R. G., Fenker, J., Cordeiro, T. E.F., Ferrari, G. C. P., Franco, A. C. S., Gasparetto, L. F., Hipólito, J., Hohlenwerger, C., Hörmaneder, B., de Jesus, P. B., Matos, S. S., Pareja-Mejía, D., Murer, B. M., Pavone, C. B., Pilecco, F. B., Queiroz-Souza, C., Reis, A., Santana, P. C., Dias-Silva, L., Souza, L., Telles, M. P. C., Viaggi, J. and Virginio, F. 2022. Community voices: sowing, germinating, flourishing as strategies to support inclusion in STEM. *Nature* 13: 1–5.
- Eaton, A. A., Saunders, J. F. and West, K. 2019. How gender and race stereotypes impact the advancement of scholars in STEM: professors' biased evaluations of physics and biology post-doctoral candidates. *Sex Roles* 82: 127–141.
- FAPESP. 2017. A sombra do assédio na integridade da ciência. Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP), São Paulo. Website: <https://revis-tapesquisa.fapesp.br/a-sombra-do-assedio-na-integridade-da-ciencia/>. Accessed on 21 August 2022.

- Ferreira, L. 2018. Menos de 3% entre docentes da pós-graduação, doutoras negras desafiam racismo na academia. *Gênero e Número*, Brasil. Website: <http://www.generonumero.media/menos-de-3-entre-docentes-doutoras-negras-desafiam-racismo-na-academia/>. Acessada em 28 de janeiro de 2023.
- Ferreira, C. A. and Machado, C. V. 2022. *Dossiê Temático: Mulheres e Meninas na Ciência*. Fundação Oswaldo Cruz (FIOCRUZ), Rio de Janeiro.
- IBGE. 2010. Censo Brasileiro de 2010. Instituto Brasileiro de Geografia e Estatística (IBGE), Rio de Janeiro. Website: <https://censo2010.ibge.gov.br/>. Accessed on 21 August 2022.
- Instituto Avon. 2015. Violência contra a mulher no ambiente universitário. São Paulo. Website: <https://dossies.agenciapatriciagalvao.org.br/dados-e-fontes/pesquisa/violencia-contra-a-mulher-no-ambiente-universitario-data-popularinstituto-avon-2015/>. Accessed on 21 August 2022.
- Machado, L. S., Rosa e Silva, L. K., Ricachenevsky, F. K., Perlin, M., Schwartz, I. V. D., Neis, A. T., Soletti, R. C., Seixas, A. and Staniscuaski, F. 2019. Parent in science: the impact of parenthood on the scientific career in Brazil. In: *IEEE/ACM 2nd International Workshop on Gender Equality in Software Engineering (GE)*, pp.37-40. Montreal.
- Morgan, A. C., Way, S. F., Hofer, M. J. D., Larremore, D. B., Galesic, M. and Clauset, A. 2021. The unequal impact of parenthood in academia. *Sci. Adv.* 7: 1–8.
- Navas, A. L. G. P., Berti, L., Trindade, E. R. and Lunardelo P. P. 2020. Divulgação científica como forma de compartilhar conhecimento. *CoDAS* 32: 1–3.
- Strier, K. B. 1987. Ranging behavior of woolly spider monkeys, or muriquis, *Brachyteles arachnoides*. *Int. J. Primatol.* 8: 575–591.
- Strier, K. B. 1999. *Faces in the Forest: The Endangered Muriqi Monkeys of Brazil*. Harvard University Press.
- Strier, K. B. 2000. Population viabilities and conservation implications for muriquis (*Brachyteles arachnoides*) in Brazil's Atlantic Forest. *Biotropica* 32: 903–913.
- Strier, K. B. 2019. Everything for the muriquis: reflections from a long-term field study on a critically endangered primate. *Bol. Soc. Bras. Mastozool.* 85: 117–127.
- Strier, K. B. and Boubli, J. P. 2006. A history of long-term research and conservation of northern muriquis (*Brachyteles hypoxanthus*) at the Estação Biológica de Caratinga/RPPN-FMA. *Primate Conserv.* 20: 53–63.
- Zandonà, E. 2022. Female ecologists are falling from the academic ladder: A call for action. *Perspect. Ecol. Conserv.* 20: 294–299.