



MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA  
E INOVAÇÃO



# Mini curso: Modelagem de corredores ecológicos para a conservação da biodiversidade

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Taís Moreira

**Monitora:** Mileide Formigoni




Agosto de 2025

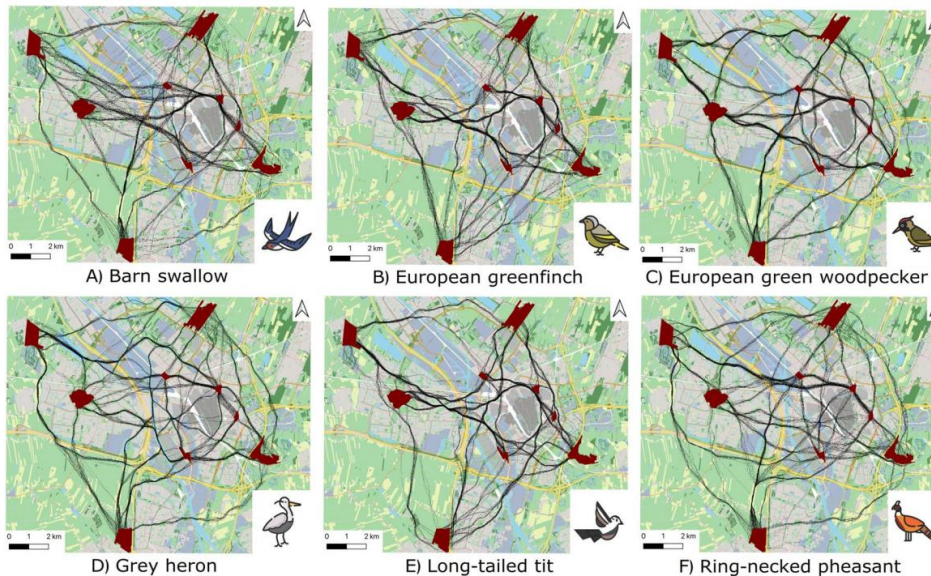
# Aplicações

Urban Ecosystems (2025) 28:73

<https://doi.org/10.1007/s11252-025-01686-7>

## Identifying urban hotspots of potential bird and pedestrian encounters through corridor overlap

Emma E. Verweij<sup>1</sup>  · João Carlos Pena<sup>2</sup>  · Julia C. Assis<sup>1</sup> 



Verificaram a sobreposição de rotas usados por aves e humanos em uma área urbana

# Aplicações



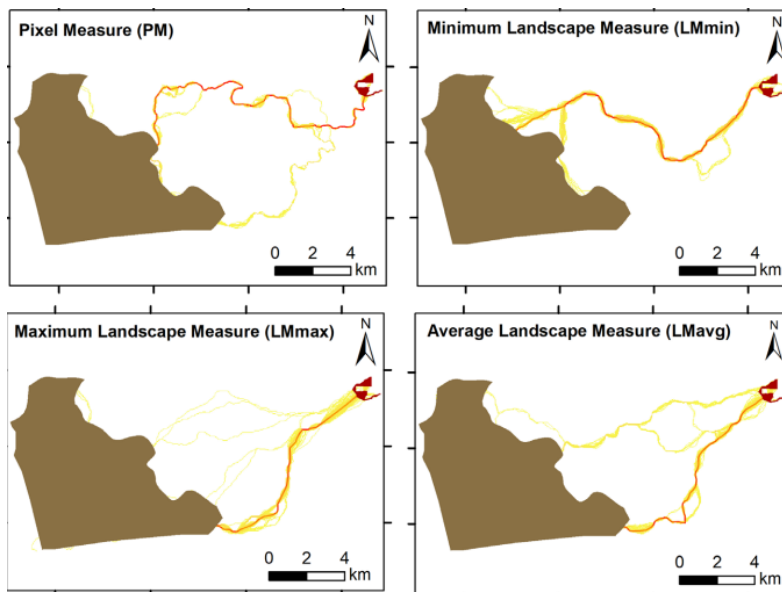
An Acad Bras Cienc (2025) 97(3): e20231177 DOI 10.1590/0001-3765202520231177  
Anais da Academia Brasileira de Ciências | *Annals of the Brazilian Academy of Sciences*  
Printed ISSN 0001-3765 | Online ISSN 1678-2690  
[www.scielo.br/aabc](http://www.scielo.br/aabc) | [www.fb.com/aabcjournal](http://www.fb.com/aabcjournal)

GEOSCIENCES

## Financial expenditure as a criterion for choosing the most appropriate method for ecological corridor implementation

RENAN A. OLIVEIRA, LILIANE M. NERY, VANESSA CÉZAR SIMONETTI, ARTHUR P. DOS SANTOS, ANTÔNIO CÉSAR G. MARTINS & DARLLAN C.C. SILVA

**Usaram variáveis  
socioeconômicas para o  
delineamento de corredores**



# Aplicações

Landscape Ecol (2024) 39:73

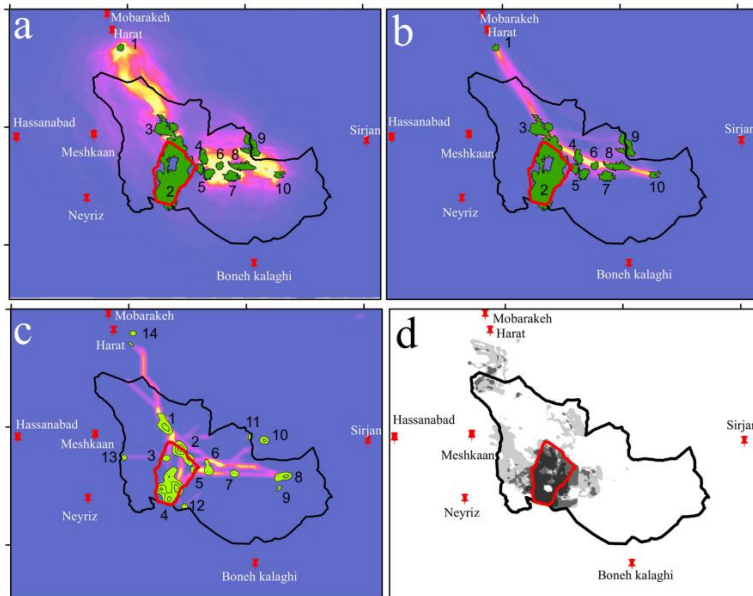
<https://doi.org/10.1007/s10980-024-01873-5>

## RESEARCH ARTICLE

### Rethinking connectivity modeling for high-mobility ungulates: insights from a globally endangered equid

Azita Rezvani · Mahmoud-Reza Hemami · Jacob R. Goheen ·

Petra Kaczensky · Saeid Pourmanafi · Sima Fakheran · Saeideh Esmacili



Compararam o desempenho do LS com outros métodos aplicados a conectividade da paisagem e compararam com dados de campo

# Aplicações



Contents lists available at [ScienceDirect](#)

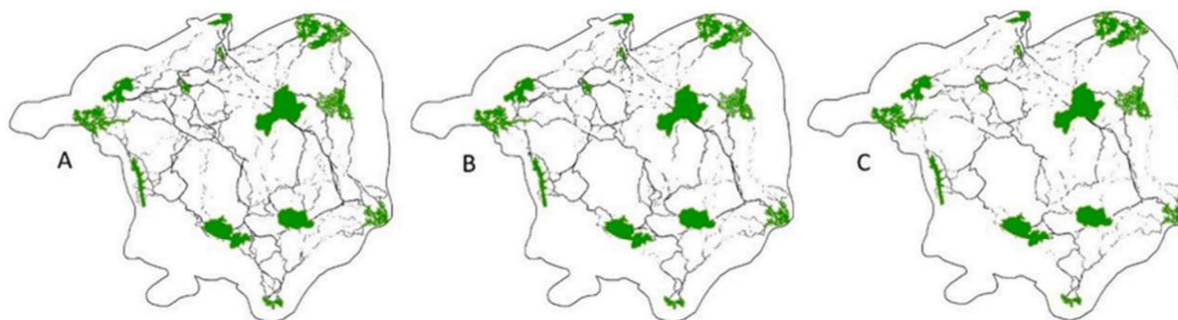
Biological Conservation

journal homepage: [www.elsevier.com/locate/biocon](http://www.elsevier.com/locate/biocon)



## Defining priority areas for conservation based on multispecies functional connectivity

Wanderson Lopes Lamounier<sup>a,b,\*</sup>, Juliana Silveira dos Santos<sup>c</sup>, Evandro Luís Rodrigues<sup>d</sup>, Maria Auxiliadora Drumond<sup>a</sup>



**A partir das simulações definiram áreas prioritárias para a conservação de diferentes espécies de mamíferos e aves**



# Aplicações

第 44 卷第 8 期  
2024 年 4 月

生 态 学 报  
ACTA ECOLOGICA SINICA

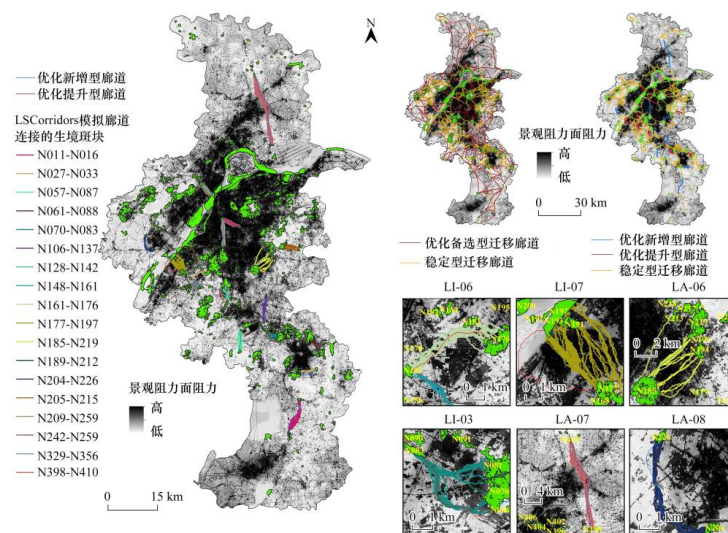
Vol.44, No.8  
Apr., 2024

DOI: 10.20103/j.stxb.202309051928

沈舟,尹海伟,孔繁花,苏杰,孙辉,李久林.基于生境组团化分析与景观廊道模拟的南京市白鹭生境网络构建与优化.生态学报,2024,44(8): 3303-3316.

Shen Z, Yin H W, Kong F H, Su J, Sun H, Li J L. Establishment and optimization of *Egretta garzetta* habitat network in Nanjing based on habitat grouping analysis and LandScape Corridors simulation. Acta Ecologica Sinica, 2024, 44(8): 3303-3316.

## 基于生境组团化分析与景观廊道模拟的南京市白鹭生境网络构建与优化



**致谢:**感谢圣保罗州立大学生态学系、空间生态与保护实验室朱莉安娜博士 (Juliana Silveira dos Santos) 对 LSCorridors 软件包及算法应用提供的帮助。

Agradecemos à Dra. Juliana Silveira dos Santos, do Departamento de Ecologia, Laboratório de Ecologia Espacial e Conservação, Universidade Estadual de São Paulo, por sua assistência com o software LSCorridors e a aplicação do algoritmo.

Com base nas simulações de corredores definiram novos habitats para uma espécie de ave em uma província na China

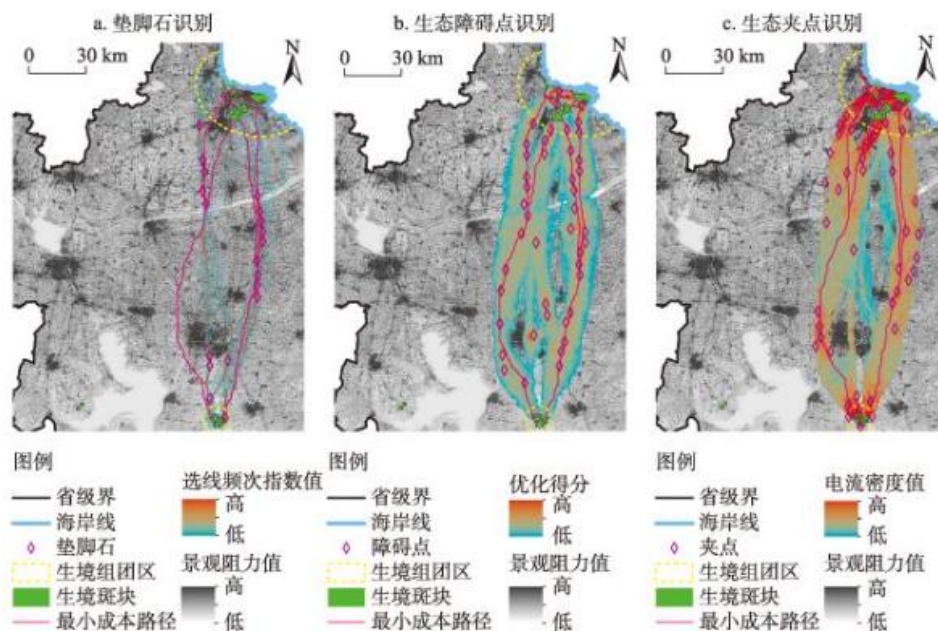
# Aplicações

JOURNAL OF NATURAL RESOURCES ›› 2024, Vol. 39 ›› Issue (12) : 2834-2852. DOI: 10.31497/zrzyxb.20241206

Ecological Protection, Restoration and Mangement

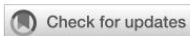
## Construction of avian biodiversity conservation patterns and optimization of ecological corridors in Jiangsu province

SHEN Zhou<sup>1✉</sup>, YIN Hai-wei<sup>1, 2, 3✉</sup>, KONG Fan-hua<sup>4</sup>, SU Jie<sup>1</sup>, SUN Hui<sup>1</sup>, GAI Zhen-yu<sup>1</sup>, BAN Yu-long<sup>5</sup>



Com base nas simulações definiram áreas para conservação de aves em uma província na China

# Aplicações



## An objective approach to select surrogate species for connectivity conservation

### OPEN ACCESS

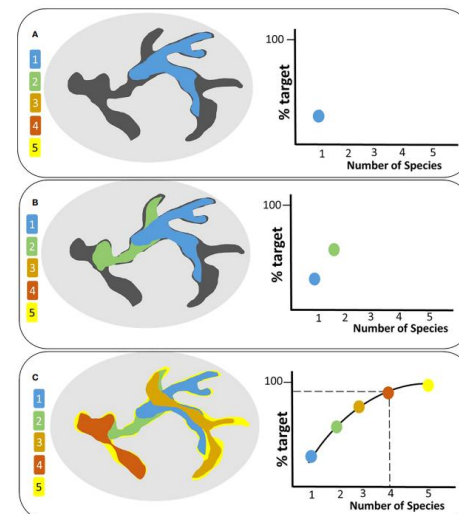
EDITED BY  
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University of Idaho, United States

REVIEWED BY  
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Bonefish and Tarpon Trust, United States

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Trishna Dutta<sup>1,2\*</sup>, Marta De Barba<sup>3,4,5</sup>, Nuria Selva<sup>6,7</sup>,  
Ancuta Cotovelea Fedorca<sup>8</sup>, Luigi Maiorano<sup>9</sup>,  
Wilfried Thuiller<sup>3</sup>, Andreas Zedrosser<sup>10,11</sup>, Johannes Signer<sup>1</sup>,  
Femke Pflüger<sup>1,12</sup>, Shane Frank<sup>10</sup>, Pablo M. Lucas<sup>6,9,13</sup>  
and Niko Balkenhol<sup>1</sup>

Com base nas simulações definiram áreas para a conservação de espécies chaves





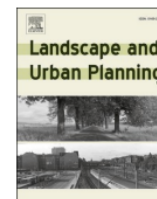
# Aplicações



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

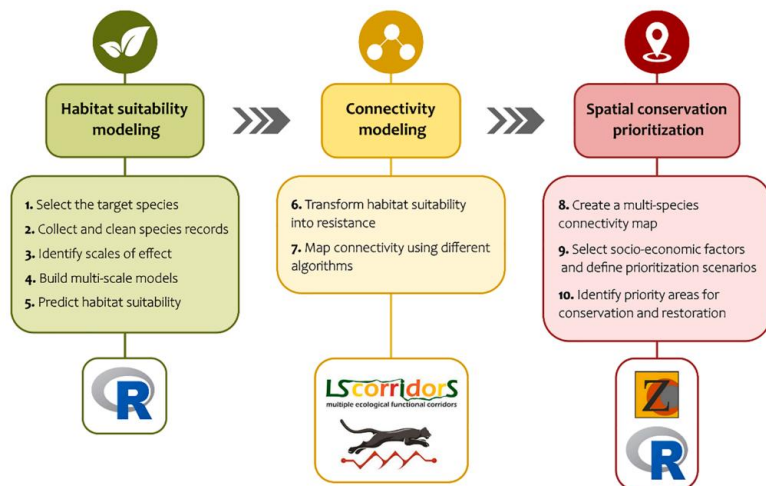
## Landscape and Urban Planning

journal homepage: [www.elsevier.com/locate/landurbplan](http://www.elsevier.com/locate/landurbplan)



### Balancing multi-species connectivity and socio-economic factors to connect protected areas in the Paraguayan Atlantic Forest

Milena Fiuza Diniz <sup>a,\*</sup>, Francisco Dallmeier <sup>a</sup>, Tremaine Gregory <sup>a</sup>, Victor Martinez <sup>b</sup>,  
Silvia Saldivar-Bellassai <sup>b</sup>, Maria Alejandra Benitez-Stanley <sup>b</sup>, Ana María Sánchez-Cuervo <sup>a</sup>



Com base nas simulações definiram áreas para aumentar a conectividade da paisagem e utilizaram dados socioeconômicos

# Aplicações



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Landscape and Urban Planning

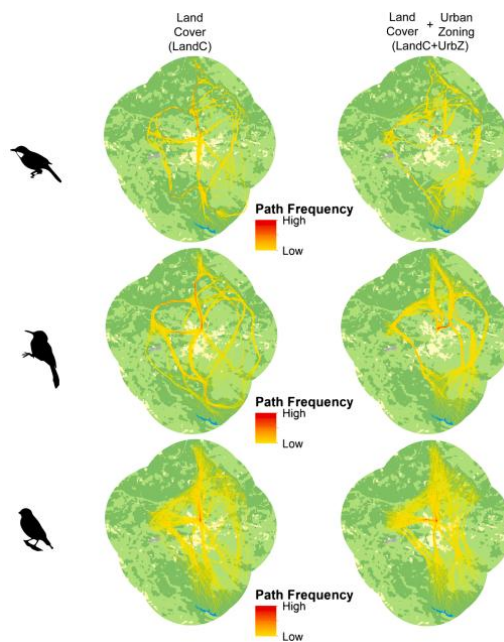
journal homepage: [www.elsevier.com/locate/landurbplan](http://www.elsevier.com/locate/landurbplan)



Research Paper

### Combining land cover, animal behavior, and master plan regulations to assess landscape permeability for birds

Tulaci Bhakti<sup>a,b,\*</sup>, João Carlos Pena<sup>c,d</sup>, Bernardo Brandão Niebuhr<sup>c,e,f,g</sup>, Juliana Sampaio<sup>h</sup>,  
Fernando Figueiredo Goulart<sup>i</sup>, Cristiano Schetini de Azevedo<sup>a,j</sup>, Milton Cezar Ribeiro<sup>c</sup>,  
Yasmine Antonini<sup>a,j</sup>



**Delinearam corredores para  
aumentar a permeabilidade  
da paisagem para aves**

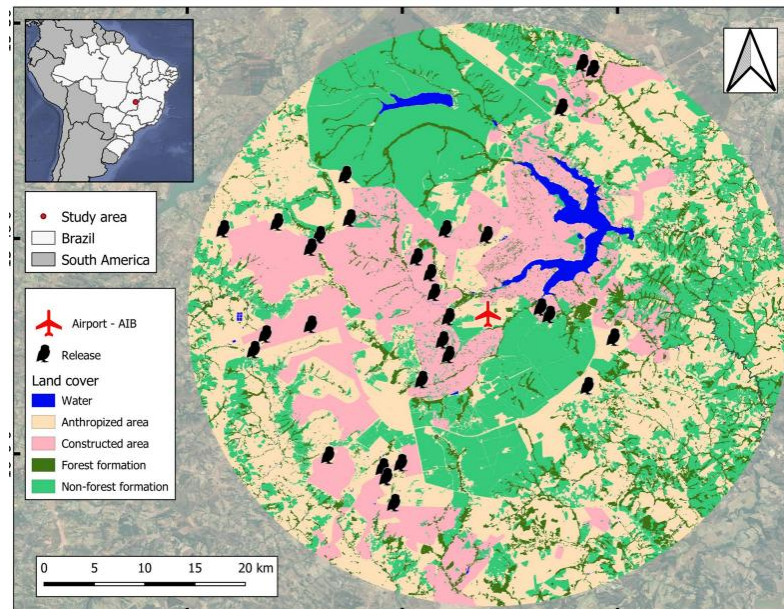
# Aplicações

Urban Ecosystems (2022) 25:499–509  
<https://doi.org/10.1007/s11252-021-01170-y>

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## Predicting burrowing owl flight trajectories in urban environments

Eduardo Guimarães Santos<sup>1</sup>  · Helga Correa Wiederhecker<sup>2</sup>  · Ricardo Bomfim Machado<sup>3</sup> 



Delinearam corredores na área do aeroporto de Brasília para reduzir acidentes/colisões com corujas buraqueiras


# Aplicações

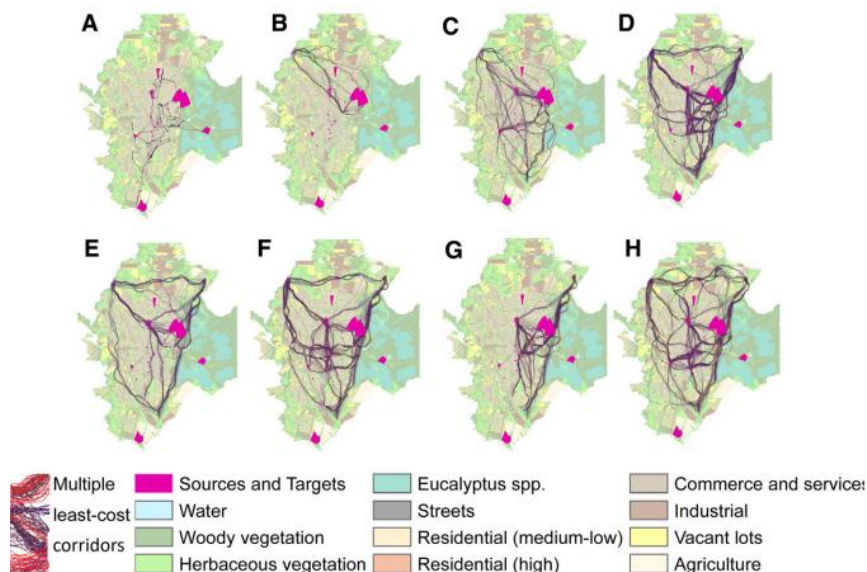
Ambio 2022, 51:253–268  
<https://doi.org/10.1007/s13280-021-01551-9>



## RESEARCH ARTICLE

### Reconciling humans and birds when designing ecological corridors and parks within urban landscapes

Gabriela Rosa Graviola , Milton Cezar Ribeiro, João Carlos Pena





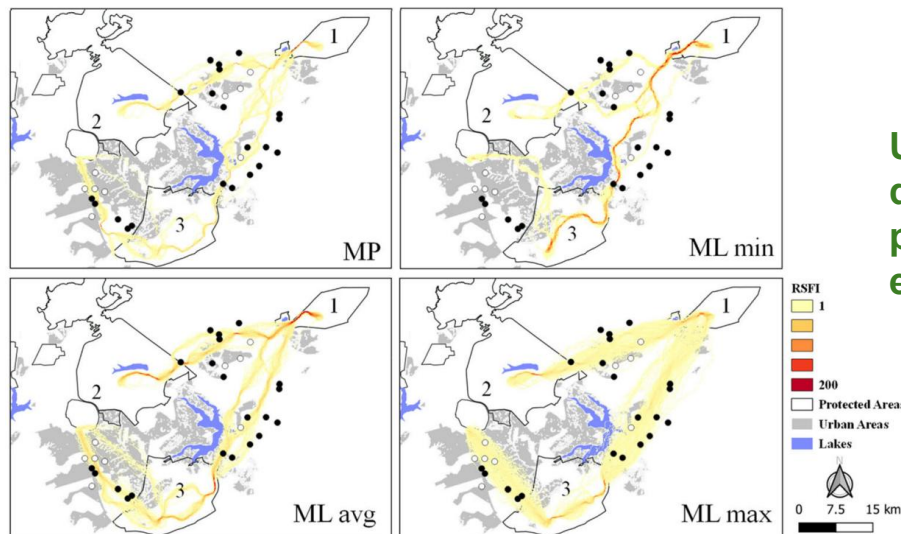
Usaram as simulações para delinear as rotas preferenciais para aves e pessoas em uma paisagem área urbana

# Aplicações

Urban Ecosystems (2021) 24:1141–1154  
<https://doi.org/10.1007/s11252-021-01107-5>

## Parrots and the city: modeling potential corridors in an urban environment

Paulla Jezuíno<sup>1</sup>  • Renata Duarte Alquezar<sup>1</sup> • Ricardo Bomfim Machado<sup>2</sup> 



Usaram as simulações para delinear as rotas preferenciais de papagaios em paisagem urbana



# Aplicações



## Perspectives in ecology and conservation

Supported by Boticário Group Foundation for Nature Protection

[www.perspectecolconserv.com](http://www.perspectecolconserv.com)

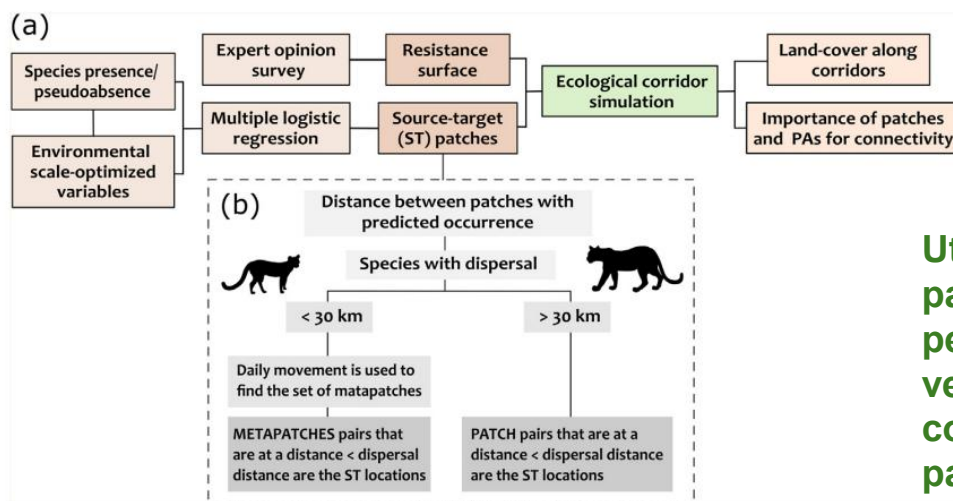


### Research Letters

## The underestimated role of small fragments for carnivore dispersal in the Atlantic Forest



Milena F. Diniz<sup>a,\*</sup>, Marco T.P. Coelho<sup>a</sup>, Fernanda G. de Sousa<sup>b</sup>, Érica Hasui<sup>c</sup>, Rafael Loyola<sup>a,d</sup>



Utilizaram as simulações para identificar o papel de pequenas áreas de vegetação natural para a conectividade da paisagem para grandes mamíferos

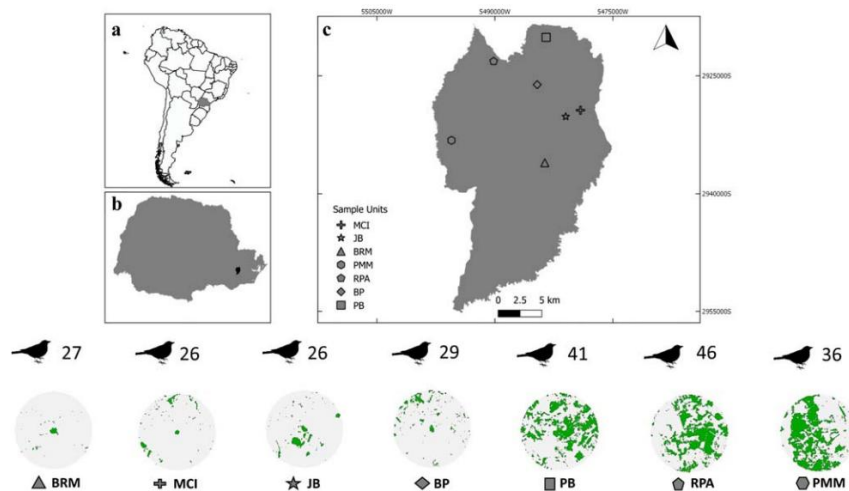
# Aplicações

Urban Ecosystems (2020) 23:457–470  
<https://doi.org/10.1007/s11252-020-00927-1>

## Urbanization homogenizes the interactions of plant-frugivore bird networks



Israel Schneiberg<sup>1,2</sup> • Danilo Boscolo<sup>3</sup> • Mariano Devoto<sup>4</sup> • Vinicius Marcilio-Silva<sup>1,5</sup> • Cilmar Antônio Dalmaso<sup>6</sup> • John Wesley Ribeiro<sup>7</sup> • Milton Cezar Ribeiro<sup>7</sup> • André de Camargo Guaraldo<sup>1</sup> • Bernardo Brandão Niebuhr<sup>7</sup> • Isabela Galarda Varassin<sup>1,2</sup>



Realizaram o cálculo da conectividade funcional da paisagem com base na simulação de corredores ecológicos

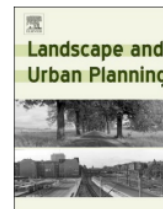
# Aplicações



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

## Landscape and Urban Planning

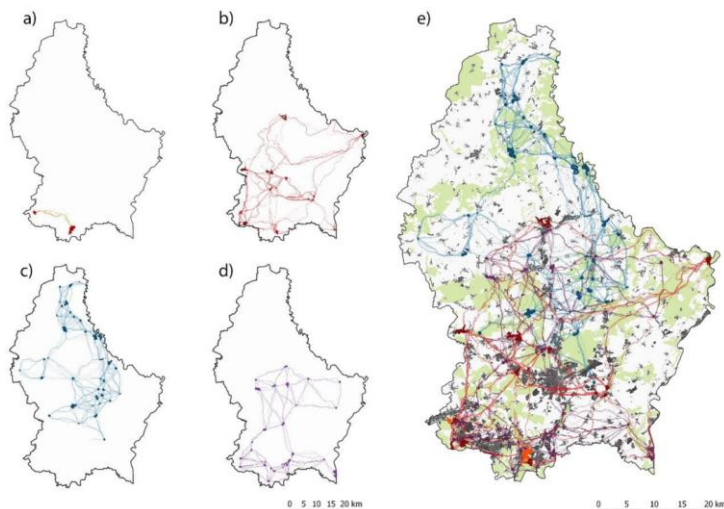
journal homepage: [www.elsevier.com/locate/landurbplan](http://www.elsevier.com/locate/landurbplan)



### Research Paper

## Assessing habitat loss, fragmentation and ecological connectivity in Luxembourg to support spatial planning

Javier Babí Almenar<sup>a,b,c,\*</sup>, Alya Bolowich<sup>a</sup>, Thomas Elliot<sup>a,d</sup>, Davide Geneletti<sup>c</sup>, Guido Sonnemann<sup>b</sup>, Benedetto Rugani<sup>a</sup>



Identificaram rotas preferenciais de movimento de diferentes organismos na paisagem (abordagem multitáxon)

# Aplicações



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Biological Conservation

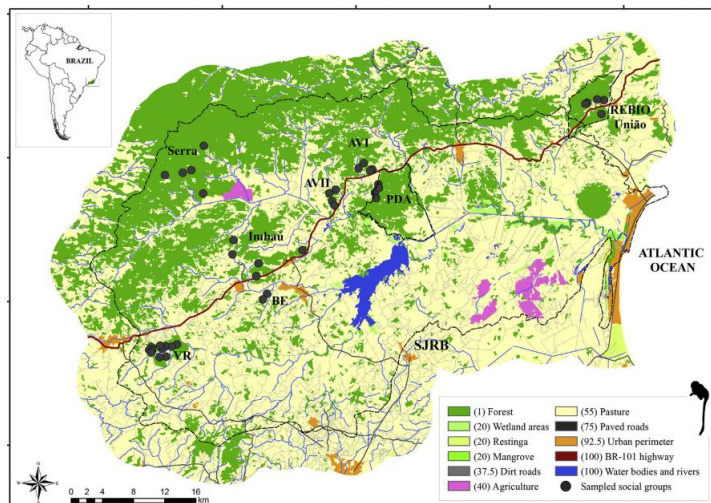
journal homepage: [www.elsevier.com/locate/biocon](http://www.elsevier.com/locate/biocon)



## Landscape resistance influences effective dispersal of endangered golden lion tamarins within the Atlantic Forest



Andreia Magro Moraes<sup>a,b,c,\*</sup>, Carlos R. Ruiz-Miranda<sup>a</sup>, Pedro M. Galetti Jr.<sup>b</sup>,  
Bernardo Brandão Niebuhr<sup>c</sup>, Brenda R. Alexandre<sup>d</sup>, Renata L. Muylaert<sup>c</sup>, Adriana D. Grativol<sup>a</sup>,  
John W. Ribeiro<sup>c</sup>, Arystene N. Ferreira<sup>b</sup>, Milton Cezar Ribeiro<sup>c</sup>



Calcularam métricas de permeabilidade e conectividade da paisagem com base nas simulações de corredores

# Aplicações



## Perspectives in ecology and conservation

Supported by Boticário Group Foundation for Nature Protection

<https://www.journals.elsevier.com/perspectives-in-ecology-and-conservation/>

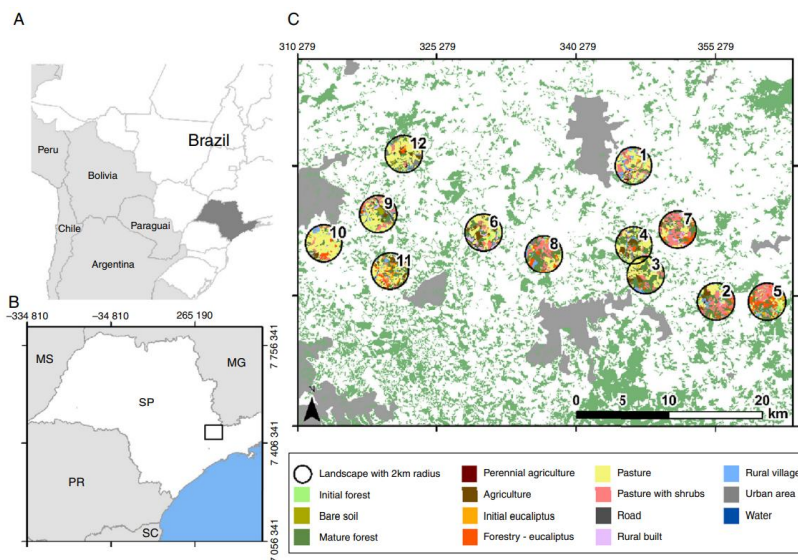


### Research Letters

## Positive responses of flower visiting bees to landscape heterogeneity depend on functional connectivity levels



Danilo Boscolo<sup>a,\*</sup>, Paola Mandetta Tokumoto<sup>b</sup>, Patrícia Alves Ferreira<sup>a</sup>, John Wesley Ribeiro<sup>b</sup>, Juliana Silveira dos Santos<sup>b</sup>



Com base nas simulações calcularam a conectividade funcional da paisagens