Des données ouvertes
pour une science durable au Sud

Retour d'expérience sur la publication de *data papers en écologie*

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Séminaire de lancement de l'entrepôt de données de l'IRD

Agropolis International, Montpellier - 6 Septembre 2019

Qu’est-ce qu’un *data paper* ?

- Un **article citable** (*copyrigth, doi*) décrivant un **jeu de données brutes** *(métadonnées*) et y donnant plus ou moins librement accès (*entrepôt de données*)

A quoi sert un *data paper* ?

- **Documenter des données** pour permettre leur réutilisation (*reproductibilité des études*)

- Permet l’**agrégation de données** pour conduire des études globales

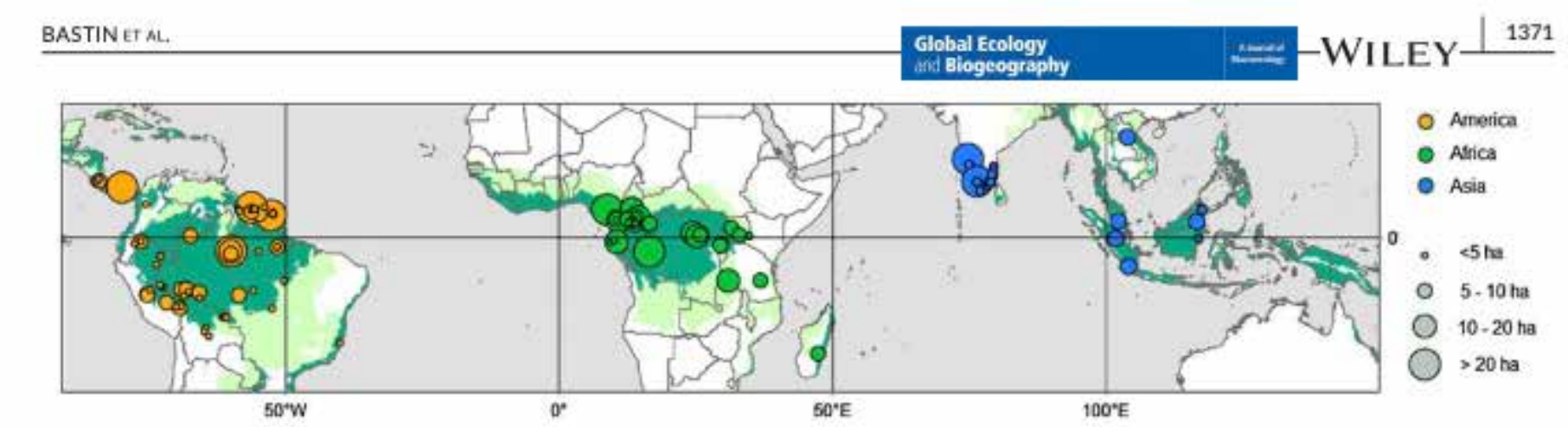

FIGURE 1 Geographical distribution of the plot database. We used 867 plots of 1 ha from 118 sites. Dots are coloured according to floristic affinities (Slik et al., 2015), with America, Africa and Asia in orange, green and blue, respectively. They are also sized according the total area surveyed in each site. In the background, moist forests are displayed in dark green and dry forest in light green [Colour figure can be viewed at wileyonlinelibrary.com]

Ecology, 91(10), 2010, p. 3118

Forest stand structure and composition in 96 sites along environmental gradients in the central Western Ghats of India

Ecological Archives E091-216

B. R. Ramesh,[1] M. H. Swaminath,[2] Santoshgouda V. Patil,[1] Dasappa,[2] Raphaël Pélissier,[1,3,5] P. Dilip Venugopal,[1,4] S. Aravajy,[1] Claire Elouard,[1] and S. Ramalingam[1]

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[2]*Karnataka Forest Department, Aranya Bhavan, 18th Cross, Malleshwaram, Bangalore 560003 India*
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[4]*Department of Entomology, University of Maryland, 4124 Plant Sciences Building, College Park, Maryland 20742-4454 USA*

Abstract. This data set reports woody plant species abundances in a network of 96 sampling sites spread across 22 000 km^2 in the central Western Ghats region, Karnataka, India (74°15′–75°40′ E; 15°15′–13°30′ N). Due to its varied climate and diverse topography, the study area, which is part of the Western Ghats–Sri Lanka biodiversity hotspot, supports a wide array of non-equatorial tropical habitats including wet evergreen, moist and dry deciduous, and intact as well as degraded forests and scrublands. These formations, floristically moderately rich and diversified, are characterized by a lower rate of endemism than in the southern part of the Western Ghats. This data paper provides abundance and girth data for 76 813 trees and lianas of 446 species collected in 96 sampling sites during 1996–1997. A total of 61 965 individuals $\geq$10-cm girth at breast height (gbh) were recorded in 96 1-ha macroplots, while 14 848 individuals $<$10 cm gbh, but $>$1 m height, were sampled in three 0.1-ha microplots located within each macroplot. Additional data regarding the stand structure (average canopy height, percent canopy cover, number of strata) and the level of degradation are available for the macroplots, along with environmental data derived from other sources and analyses, such as soil types, rainfall, length of the dry season, and altitude. These data have been used to produce ecological research papers, as well as to elaborate conservation value maps and recommendations toward sustainable management of the forests of the central Western Ghats region.

Key words: biodiversity sampling plots; central Western Ghats; India; Karnataka; mesoscale plot network; plant species abundances; tropical forest types.

Manuscript received 27 January 2010; accepted 24 May 2010. Corresponding Editor: W. K. Michener.
[5] Corresponding author. E-mail: Raphael.Pelissier@ird.fr

Ecology, 92(6), 2011, p. 1376

Tree demography in an undisturbed Dipterocarp permanent sample plot at Uppangala, Western Ghats of India

Ecological Archives E092-115

Raphaël Pélissier,[1,2,4] Jean-Pierre Pascal,[1,3] N. Ayyappan,[1] B. R. Ramesh,[1] S. Aravajy,[1] and S. R. Ramalingam[1]

[1]*Institut Français de Pondichéry, UMIFRE 21 CNRS-MAEE, 11 Saint Louis Street, Puducherry 605001, India*
[2]*IRD, UMR AMAP, TA A51/PS2, 34398 Montpellier cedex 05, France*
[3]*43 Rue Rockfeller, 69003 Lyon, France*

Abstract. We provide a data set on demography of trees monitored over 20 years in Uppangala permanent sample plot (UPSP) in undisturbed, old-growth wet evergreen Dipterocarp forest located within the Pushpagiri Wildlife Sanctuary in India's Western Ghats biodiversity hotspot. During 1989–1990, all trees $\geq$30 cm girth at breast height (gbh) were sampled in five north–south transects 20 m wide and 180 to 370 m long covering a total area of 3.12 ha. In 1992–1993, additional rectangular plots were established, bringing the total area sampled to 5.07 ha. In all, 3870 trees were identified, tagged, mapped, and provided with permanent dendrometer bands. Since then, the sampled area has been regularly censused at 3–5 year intervals, recording tree recruitment, mortality, and growth. We present data from censuses conducted in 1990–1993, 1994, 1997–1998, 2001–2002, 2007, and 2010. These data have been used to study the natural forest dynamics and to calibrate spatially explicit simulation models.

Key words: dendrometer bands; Dipterocarp forest; forest dynamics monitoring; India; mortality; recruitment; species demography; tree inventory data; tree growth; tropical rain forest; Western Ghats.

Manuscript received 12 October 2010; revised 10 February 2011; accepted 22 February 2011. Corresponding Editor: W. K. Michener.
[4] E-mail: Raphael.Pelissier@ird.fr

Data Papers

Ecology, 91(10), 2010, p. 3118

Forest stand structure and composition in 96 sites along environmental gradients in the central Western Ghats of India

Data Papers

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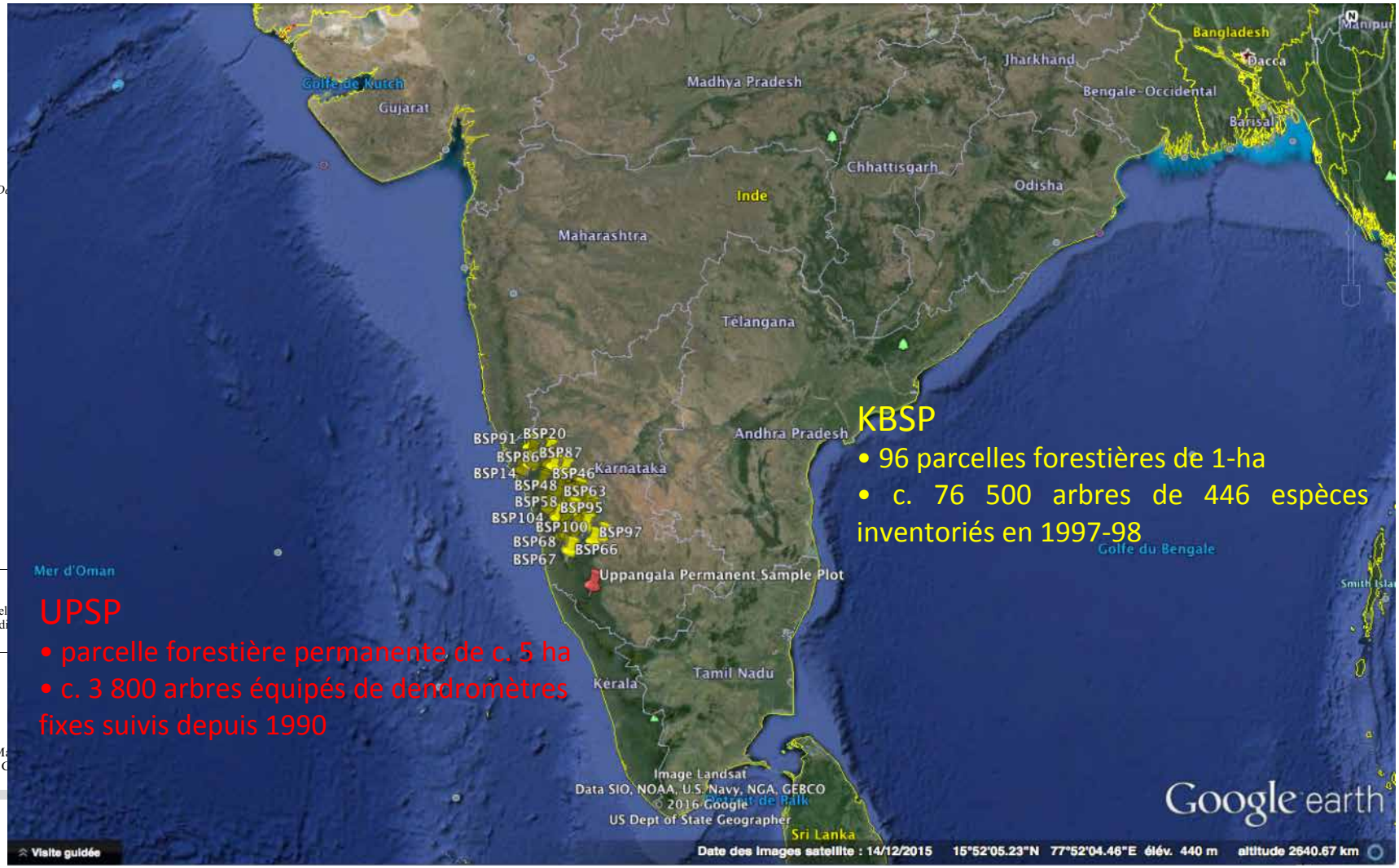
Tree demography in an undisturbed Dipterocarp permanent sample plot at Uppangala, Western Ghats of India



KBSP
- 96 parcelles forestières de 1-ha
- c. 76 500 arbres de 446 espèces inventoriés en 1997-98

UPSP
- parcelle forestière permanente de c. 5 ha
- c. 3 800 arbres équipés de dendromètres fixes suivis depuis 1990

Data Papers

Ecology, 91(10), 2010, p. 3118

Forest stand structure and composition in 96 sites along environmental gradients in the central Western Ghats of India

Motivation :

- Rendre public (et donc réutilisable) un jeu de données menacé d'être perdu.

Data Papers

Ecology, 92(6), 2011, p. 1376

Tree demography in an undisturbed Dipterocarp permanent sample plot at Uppangala, Western Ghats of India

- Faire connaître le dispositif expérimental ;
- Décrire le protocole afin de faciliter la présentation du jeu de données dans les études ultérieures.

Data Papers

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Bilan :

- 24 citations Google Scholar depuis 2010, 21 dans des articles indépendants sans co-signature

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- 10 citations Google Scholar depuis 2011, 8 dans des articles co-écrits ou thèses encadrées

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Ecology, 91(10), 2010, p. 3118

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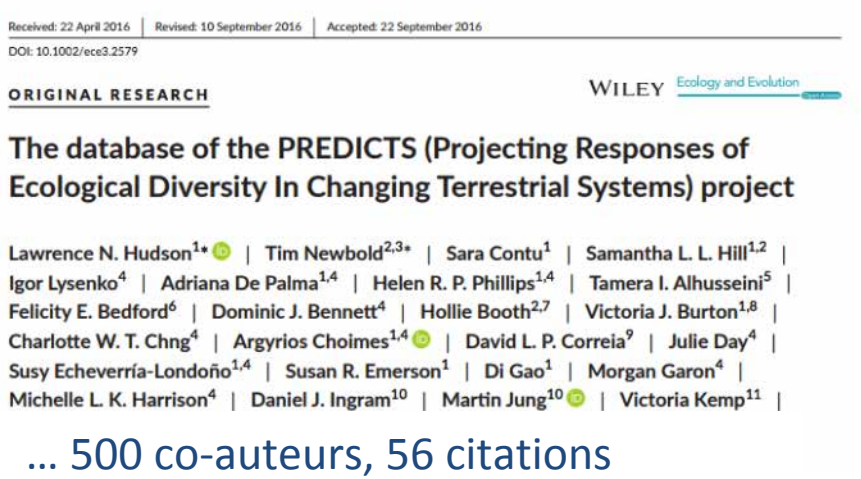

Received: 22 April 2016 | Revised: 10 September 2016 | Accepted: 22 September 2016
DOI: 10.1002/ece3.2579

ORIGINAL RESEARCH

WILEY Ecology and Evolution

The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems) project

Lawrence N. Hudson[1*] | Tim Newbold[2,3*] | Sara Contu[1] | Samantha L. L. Hill[1,2] | Igor Lysenko[4] | Adriana De Palma[1,4] | Helen R. P. Phillips[1,4] | Tamera I. Alhusseini[5] | Felicity E. Bedford[6] | Dominic J. Bennett[4] | Hollie Booth[2,7] | Victoria J. Burton[1,8] | Charlotte W. T. Chng[4] | Argyrios Choimes[1,4] | David L. P. Correia[9] | Julie Day[4] | Susy Echeverría-Londoño[1,4] | Susan R. Emerson[1] | Di Gao[1] | Morgan Garon[4] | Michelle L. K. Harrison[4] | Daniel J. Ingram[10] | Martin Jung[10] | Victoria Kemp[11] |

… 500 co-auteurs, 56 citations

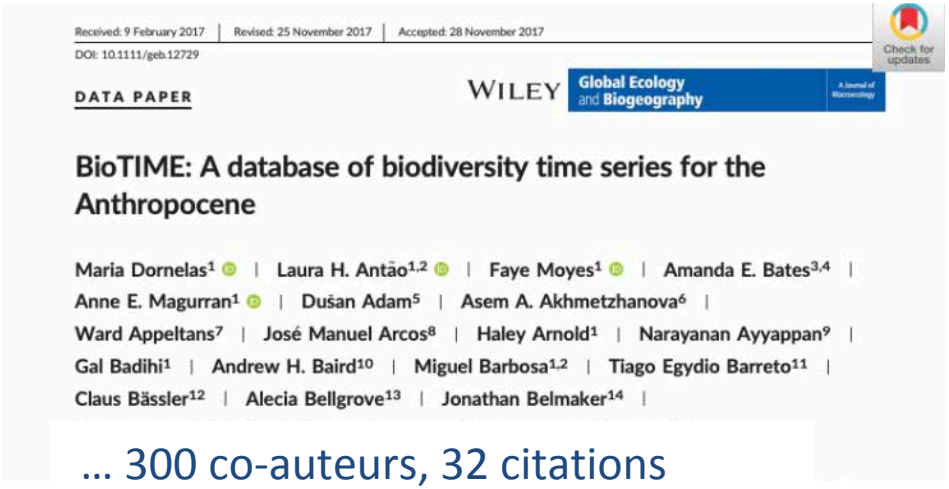
Data Papers

Ecology, 92(6), 2011, p. 1376

Tree demography in an undisturbed Dipterocarp permanent sample plot at Uppangala, Western Ghats of India

- Faire connaître le dispositif expérimental ;
- Décrire le protocole afin de faciliter la présentation du jeu de données dans les études ultérieures.

- 10 citations Google Scholar depuis 2011, 8 dans des articles co-écrits ou thèses encadrées


Received: 9 February 2017 | Revised: 25 November 2017 | Accepted: 28 November 2017
DOI: 10.1111/geb.12729

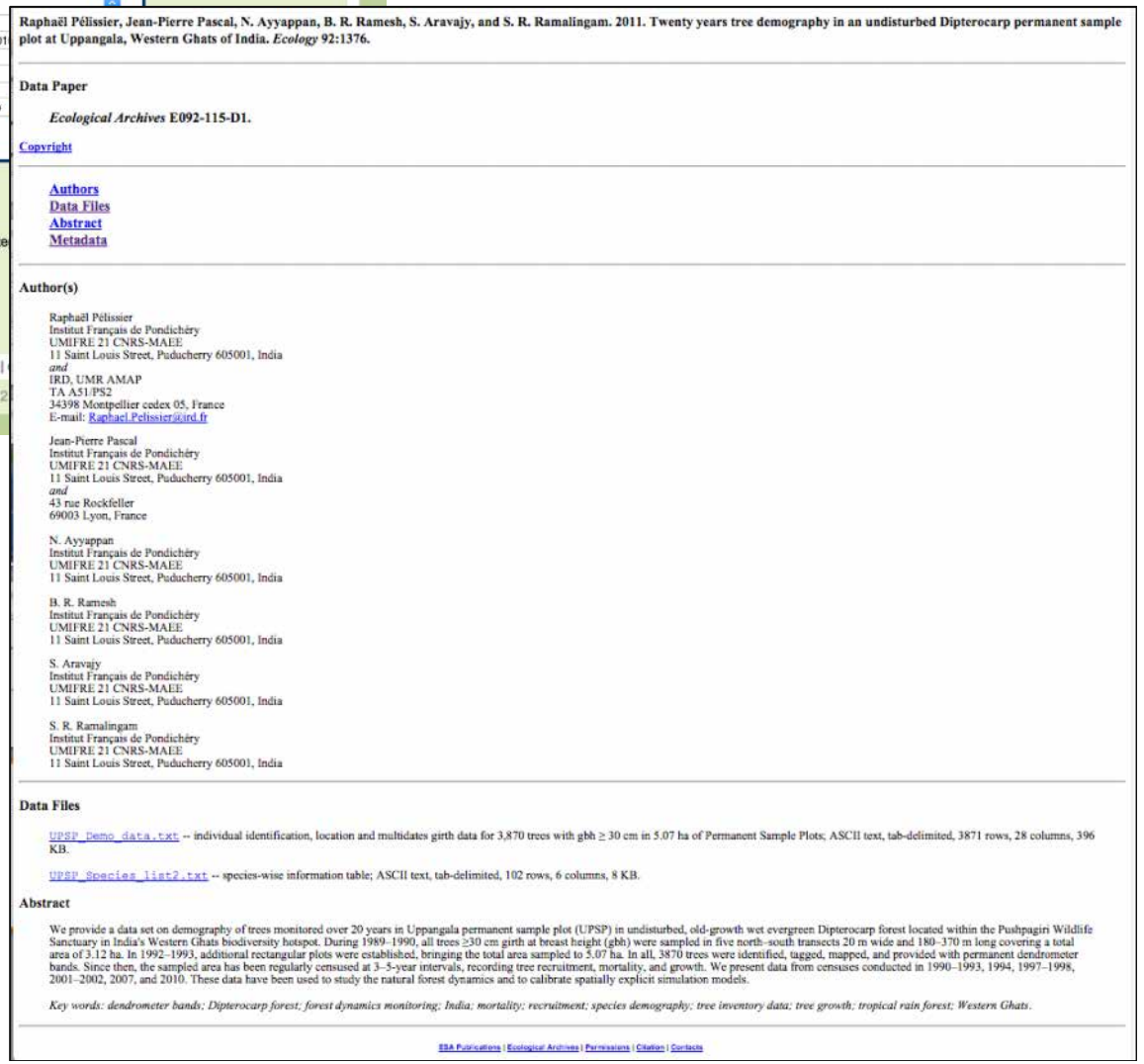
DATA PAPER

WILEY Global Ecology and Biogeography

BioTIME: A database of biodiversity time series for the Anthropocene

Maria Dornelas[1] | Laura H. Antão[1,2] | Faye Moyes[1] | Amanda E. Bates[3,4] | Anne E. Magurran[1] | Dušan Adam[5] | Asem A. Akhmetzhanova[6] | Ward Appeltans[7] | José Manuel Arcos[8] | Haley Arnold[1] | Narayanan Ayyappan[9] | Gal Badihi[1] | Andrew H. Baird[10] | Miguel Barbosa[1,2] | Tiago Egydio Barreto[11] | Claus Bässler[12] | Alecia Bellgrove[13] | Jonathan Belmaker[14] |

… 300 co-auteurs, 32 citations



Raphaël Pélissier, Jean-Pierre Pascal, N. Ayyappan, B. R. Ramesh, S. Aravajy, and S. R. Ramalingam. 2011. Twenty years tree demography in an undisturbed Dipterocarp permanent sample plot at Uppangala, Western Ghats of India. *Ecology* 92:1376.

Data Paper

***Ecological Archives* E092-115-D1.**

Copyright

Authors
Data Files
Abstract
Metadata

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Data Files

UPSP_Demo_data.txt -- individual identification, location and multidates girth data for 3,870 trees with gbh ≥ 30 cm in 5.07 ha of Permanent Sample Plots; ASCII text, tab-delimited, 3871 rows, 28 columns, 396 KB.

UPSP_Species_list2.txt -- species-wise information table; ASCII text, tab-delimited, 102 rows, 6 columns, 8 KB.

Abstract

We provide a data set on demography of trees monitored over 20 years in Uppangala permanent sample plot (UPSP) in undisturbed, old-growth wet evergreen Dipterocarp forest located within the Pushpagiri Wildlife Sanctuary in India's Western Ghats biodiversity hotspot. During 1989–1990, all trees ≥30 cm girth at breast height (gbh) were sampled in five north–south transects 20 m wide and 180–370 m long covering a total area of 3.12 ha. In 1992–1993, additional rectangular plots were established, bringing the total area sampled to 5.07 ha. In all, 3870 trees were identified, tagged, mapped, and provided with permanent dendrometer bands. Since then, the sampled area has been regularly censused at 3–5-year intervals, recording tree recruitment, mortality, and growth. We present data from censuses conducted in 1990–1993, 1994, 1997–1998, 2001–2002, 2007, and 2010. These data have been used to study the natural forest dynamics and to calibrate spatially explicit simulation models.

Key words: dendrometer bands; Dipterocarp forest; forest dynamics monitoring; India; mortality; recruitment; species demography; tree inventory data; tree growth; tropical rain forest; Western Ghats.

Référencement des données
par le *data paper*

Description des métadonnées

(d'après Michener et al. 1997. Nongeospatial metadata for ecological sciences. *Ecological Applications* 7: 330-342)

Descriptors	Examples
Class I. Data set descriptors	
A. Data set identity	Title or theme of data set
B. Data set identification code	Database accession numbers or site-specific codes used to uniquely identify data set
C. Data set description	
1. Originator(s)	Names and addresses of principal investigator(s) associated with data set
2. Abstract	Descriptive abstract summarizing research objectives, data contents (including temporal, spatial, and thematic domain), context and potential uses of data set
D. Key words	Location (spatial scale), time period and sampling frequency (temporal scale), theme or contents (thematic scale)
Class II. Research origin descriptors	
A. ''Overall'' project description	[Note: this section may be essential if data set represents a component of a larger or more comprehensive database; otherwise, relevant items may be incorporated into II.B.]
1. Identity	Project title or theme
2. Originator(s)	Name(s) and address(es) of principal investigator(s) associated with project
3. Period of study	Date commenced, date terminated, or expected duration
4. Objectives	Scope and purpose of research program
5. Abstract	Descriptive abstract summarizing broader scientific scope of ''overall'' research project
6. Source(s) of funding	Grant and contract numbers, names and addresses of funding sources
B. ''Specific subproject'' description	
1. Site description	
a. Site type	Descriptive (e.g., short-grass prairie, blackwater stream, etc.)
b. Geography	Location (e.g., latitude/longitude), size
c. Habitat	Detailed characteristics of habitats sampled
d. Geology, landform	Soils, slope/elevation/aspect, terrain/physiography, geology/lithology
e. Watersheds, hydrology	Size, boundaries, receiving streams, etc.
f. Site history	Site management practices, disturbance history, etc.
g. Climate	Descriptive summary of site climatic characteristics
2. Experimental or sampling design	
a. Design characteristics	Description of statistical/sampling design
b. Permanent plots	Dimension, location, general vegetation characteristics (if applicable).
c. Data collection period, frequency, etc.	Information necessary to understand temporal sampling regime
3. Research methods	
a. Field/laboratory	Description or reference to standard field/laboratory methods
b. Instrumentation	Description and model/serial numbers
c. Taxonomy and systematics	References for taxonomic keys, identification and location of voucher specimens, etc.
d. Permit history	References to pertinent scientific and collecting permits
e. Legal/organizational requirements	Relevant laws, decision criteria, compliance standards, etc.
4. Project personnel	Principal and associated investigator(s), technicians, supervisors, students
Class III. Data set status and accessibility	
A. Status	
1. Latest update	Date of last modification of data set
2. Latest archive date	Date of last data set archival
3. Metadata status	Date of last metadata update and current status
4. Data verification	Status of data quality assurance checking
B. Accessibility	
1. Storage location and medium	Pointers to where data reside (including redundant archival sites)
2. Contact person(s)	Name, address, phone, fax, electronic mail
3. Copyright restrictions	Whether copyright restrictions prohibit use of all or portions of the data set
4. Proprietary restrictions	Any other restrictions that may prevent use of all or portions of data set
a. Release date	Date when proprietary restrictions expire
b. Citation	How data may be appropriately cited
c. Disclaimer(s)	Any disclaimers that should be acknowledged by secondary users
5. Costs	Costs associated with acquiring data (may vary by size of data request, desired medium, etc.)
Class IV. Data structural descriptors	
A. Data set file	
1. Identity	Unique file names or codes
2. Size	Number of records, record length, total number of bytes, etc.
3. Format and storage mode	File type (e.g., ASCII, binary, etc.), compression schemes employed (if any), etc.

Ecological Applications, 22(3), 2012, pp. 993–1003

Assessing aboveground tropical forest biomass using Google Earth canopy images

Pierre Ploton,[1,2] Raphaël Pélissier,[1,3,5] Christophe Proisy,[3] Théo Flavenot,[1] Nicolas Barbier,[3] S. N. Rai,[4,6] and Pierre Couteron[3]

[1]*Département d'Ecologie, Institut Français de Pondichéry, UMIFRE MAEE-CNRS 21, Puducherry 605 001 India*
[2]*IRD, Institut de Recherche pour le Développement, UMR AMAP, University of Yaounde I, Yaounde, Cameroon*
[3]*IRD, UMR AMAP, F-34000 Montpellier, France*
[4]*101 Maha Gauri Aptt., MLA Layout, RMV II Stage, Bangalore 560 094 India*

Supplemental Material

Appendix A

Values of control structural parameters (*Ecological Archives* A022-056-A1).

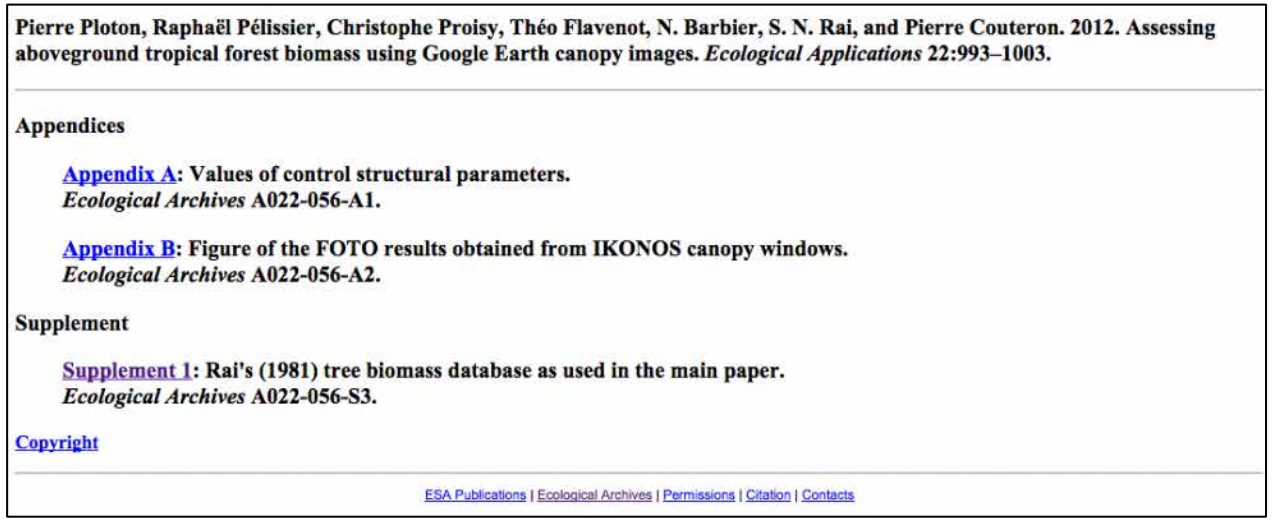
Appendix B

Figure of the FOTO results obtained from IKONOS canopy windows (*Ecological Archives* A022-056-A2).

Supplement

Rai's (1981) tree biomass database as used in the main paper (*Ecological Archives* A022-056-S1).

Référencement des données comme matériel supplémentaire associé à une publication



Pierre Ploton, Raphaël Pélissier, Christophe Proisy, Théo Flavenot, N. Barbier, S. N. Rai, and Pierre Couteron. 2012. Assessing aboveground tropical forest biomass using Google Earth canopy images. *Ecological Applications* 22:993–1003.

Appendices

Appendix A: Values of control structural parameters.
***Ecological Archives* A022-056-A1.**

Appendix B: Figure of the FOTO results obtained from IKONOS canopy windows.
***Ecological Archives* A022-056-A2.**

Supplement

Supplement 1: Rai's (1981) tree biomass database as used in the main paper.
***Ecological Archives* A022-056-S3.**

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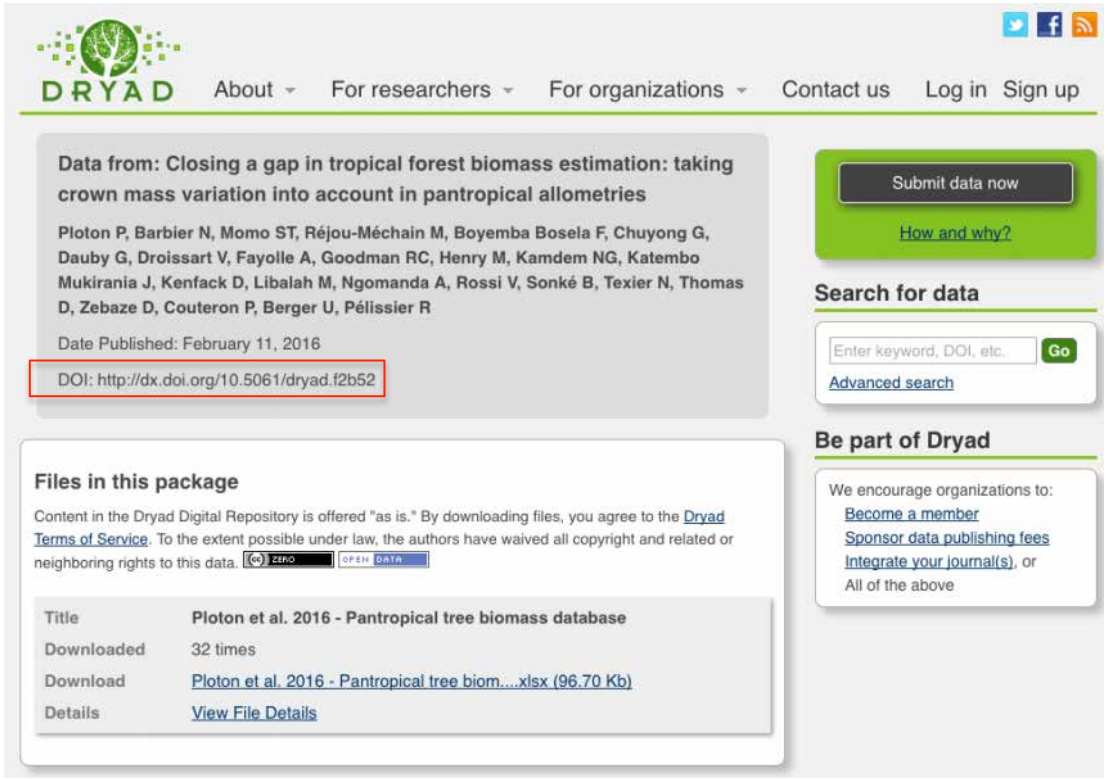
Biogeosciences, 13, 1571–1585, 2016
www.biogeosciences.net/13/1571/2016/
doi:10.5194/bg-13-1571-2016

Biogeosciences Open Access EGU

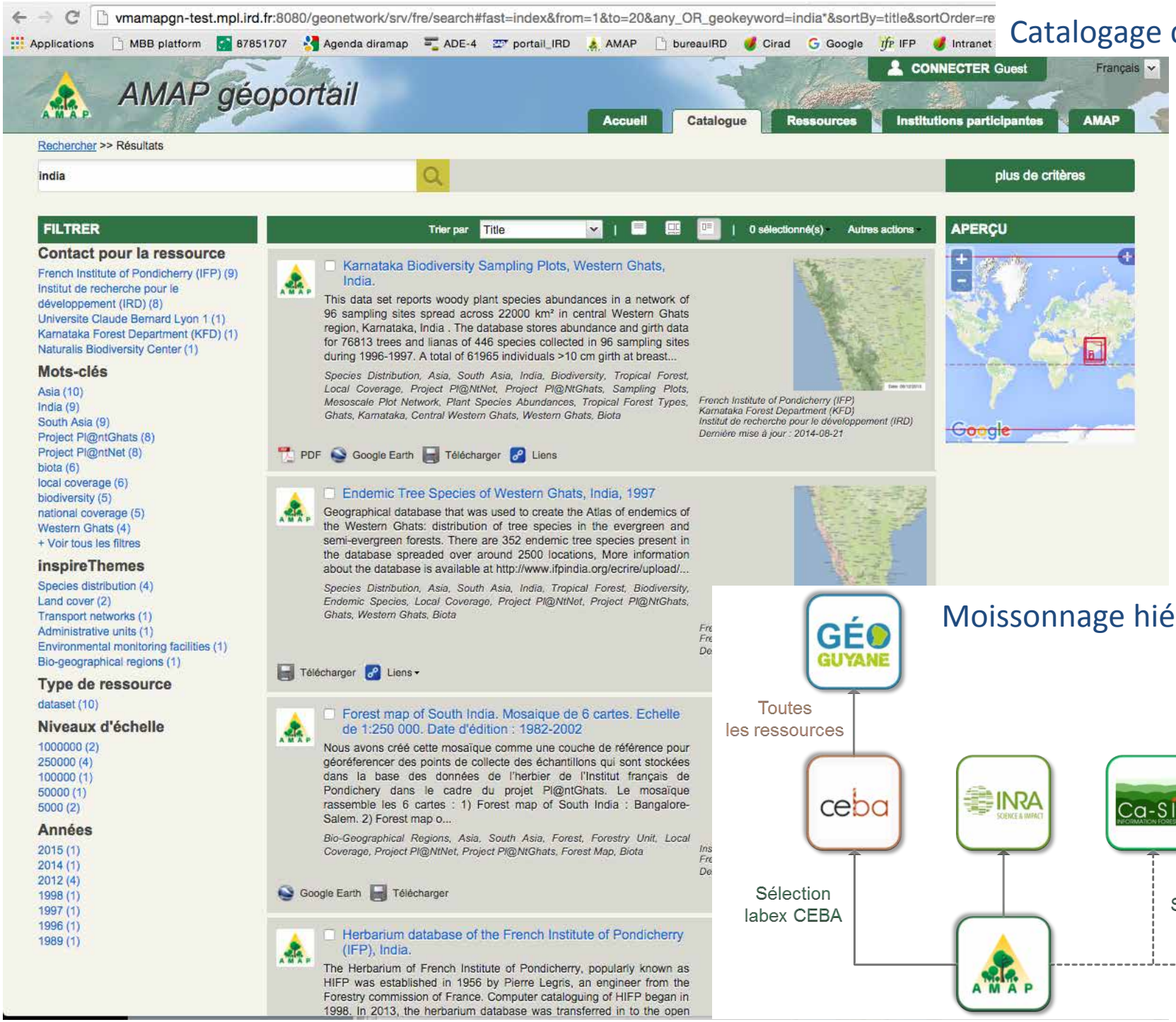
Closing a gap in tropical forest biomass estimation: taking crown mass variation into account in pantropical allometries

Pierre Ploton[1,2], Nicolas Barbier[1], Stéphane Takoudjou Momo[1,3], Maxime Réjou-Méchain[1,4,5], Faustin Boyemba Bosela[6], Georges Chuyong[7], Gilles Dauby[8,9], Vincent Droissart[1,10], Adeline Fayolle[11], Rosa Calisto Goodman[12], Matieu Henry[13], Narcisse Guy Kamdem[3], John Katembo Mukirania[6], David Kenfack[14], Moses Libalah[3], Alfred Ngomanda[15], Vivien Rossi[4,16], Bonaventure Sonké[3], Nicolas Texier[1,3], Duncan Thomas[17], Donatien Zebaze[3], Pierre Couteron[1], Uta Berger[18], and Raphaël Pélissier[1]

Référencement (DOI) et archivage des données associées à une publication



Catalogage des données



Moissonnage hiérarchique