



Sustainable coffee

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What is sustainable coffee?

- For me:
 - How can I have a cup of coffee that:
 - Minimizes environmental impacts
 - Keeps environmental resources and processes intact
 - Supports livelihoods in developing countries

Me and coffee



With so many choices for coffee, it's hard to know which is the environmentally healthy option. Shutterstock

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Shopping can be confusing at the best of times, and trying to find environmentally friendly options makes it even more difficult. Welcome to the first instalment of our Sustainable Shopping series, in which we ask experts to provide easy, eco-friendly guides to purchases big and small.

The morning coffee ritual is serious business; Australians drink roughly [16.3 million coffees a day](#). Plenty of news coverage has been devoted to its [health benefits](#) and [cultural significance](#), but how much do you know about the environmental cost of your daily latte?

Author



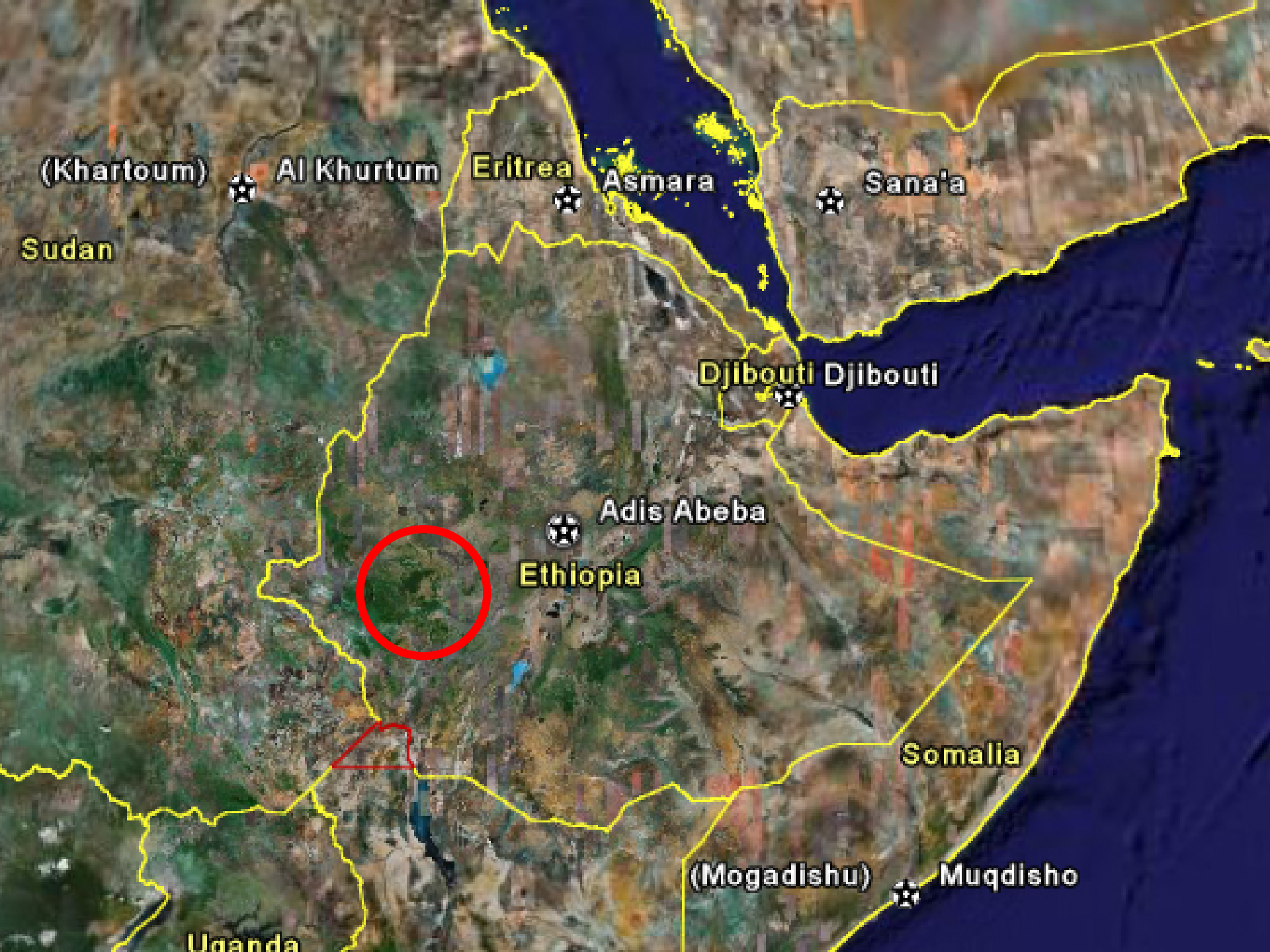
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Disclosure statement

Aaron is employed by Astron Environmental Services, an environmental consulting company based in Western Australia.





(Khartoum)

Al Khurtum

Eritrea

Asmara

Sana'a

Sudan

Djibouti Djibouti

Adis Abeba

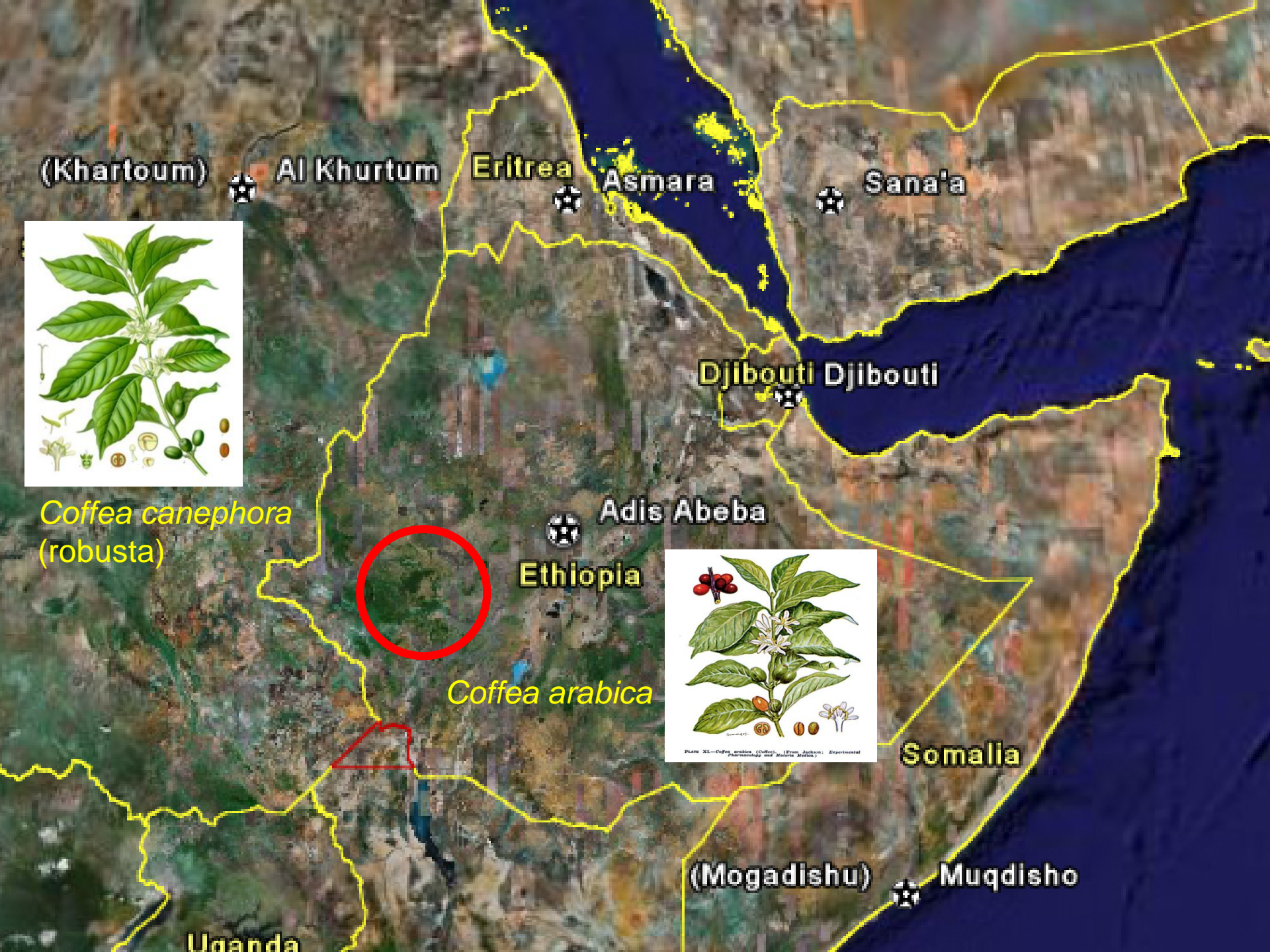
Ethiopia

Somalia

(Mogadishu)

Muqdisho

Uganda



(Khartoum)

Al Khurtum

Eritrea

Asmara

Sana'a

Djibouti Djibouti

Adis Abeba

Ethiopia

Coffea arabica

Somalia

(Mogadishu)

Muqdisho

Uganda



Coffea canephora
(robusta)



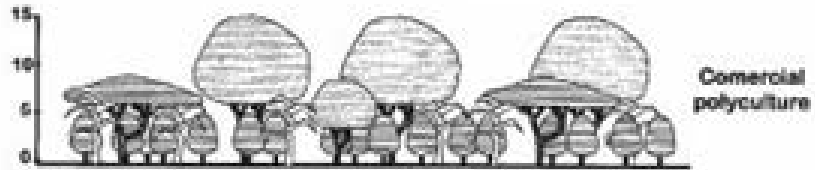
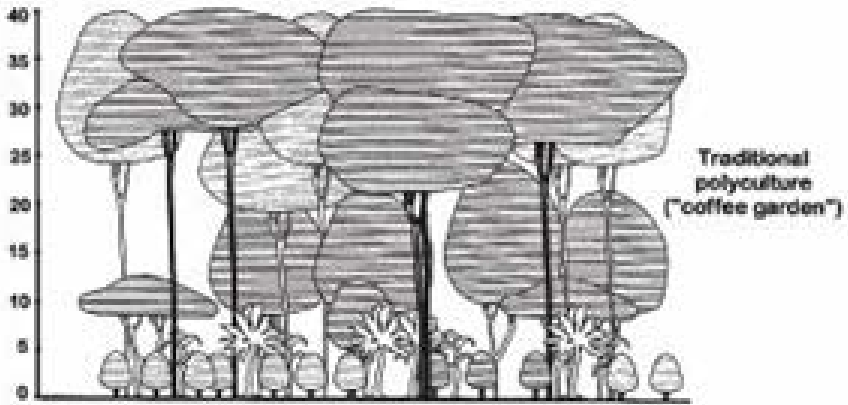
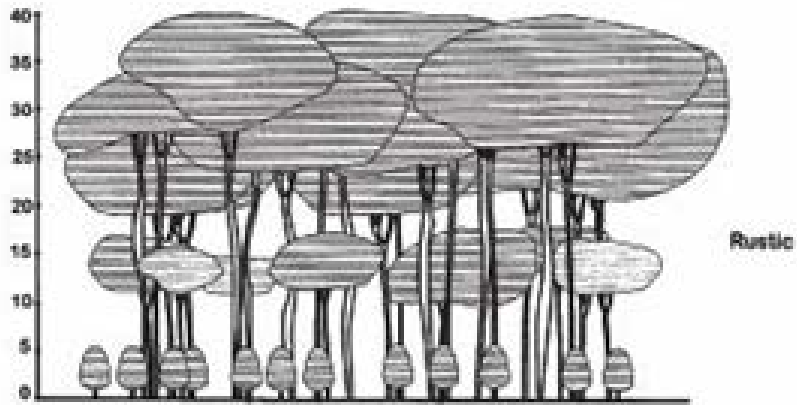
PLATE XL—*Coffea arabica* (Coffee). (From Jackson: *Experimental Pharmacology and Medical Botany*.)











Moguel & Toledo 1999



Shade Coffee: A Disappearing Refuge for Biodiversity

Shade coffee plantations can contain as much biodiversity as forest habitats

Ivette Perfecto, Robert A. Rice, Russell Greenberg, and Martha E. Van der Voort

Within the expanding agricultural frontier in the tropics, one can find a variety of small, managed forest patches and traditional agricultural systems, which provide a refuge for forest-dwelling organisms. These managed habitats are frequently overlooked as potential areas of biodiversity conservation (Pimentel et al. 1992). Furthermore, the conservation biology literature often refers to forest reserves as islands in a sea of devastation, in which the sea is formed by agriculture. Although chemically intensive monocultural systems may fit well with this perception of low

The importance of shade coffee as a refuge for biodiversity may not be in the total land it involves, but in its location in areas that have been particularly hard hit by deforestation

Ivette Perfecto is an assistant professor in the School of Natural Resources and Environment, University of Michigan, Ann Arbor, MI 48109-1115. Her research interests include the transformation of agriculture and associated changes in biodiversity. Robert A. Rice works on policy issues at the Smithsonian Migratory Bird Center, National Zoological Park, Washington, DC 20008. His interests include land use changes in Latin America and the environmental consequences of agricultural modernization. Russell Greenberg is the director of the Smithsonian Migratory Bird Center, National Zoological Park, Washington, DC 20008. His research interests include the ecology of migratory birds in tropical ecosystems. Martha E.

biodiversity, many other agroecosystems, especially in the tropics, are characterized by high vegetational diversity. One such agroecosystem is coffee, when managed with traditional cultural practices. This popular beverage, used worldwide for centuries, constitutes a major source of household income and foreign exchange for many tropical countries, especially in Latin America.

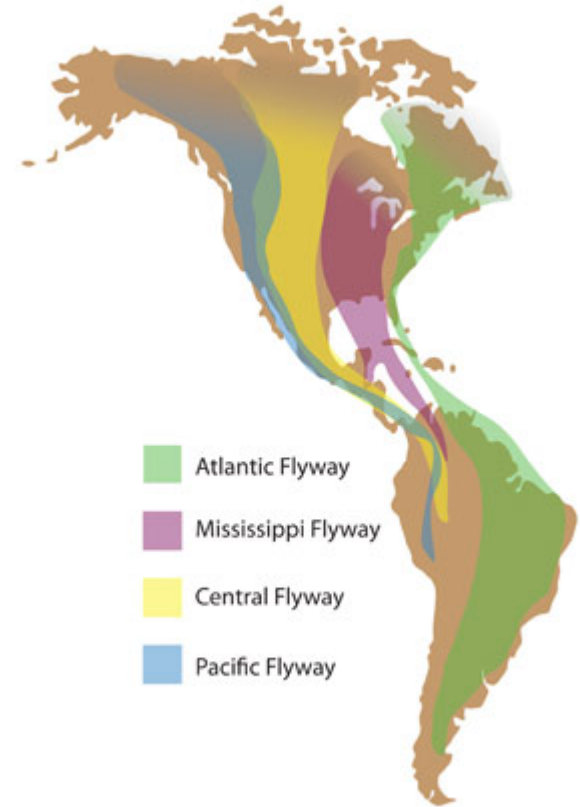
Coffee is traditionally grown under a canopy of shade trees. Because of the structural and floristic complexity of the shade trees, traditional coffee plantations have relatively high biodiversity. However, coffee

cal biodiversity. In this article we discuss the role of shade coffee plantations in protecting biodiversity. We focus on northern Latin America, an area encompassing the Caribbean islands, Mexico, Central America, and the Andean countries of South America. However, many of the issues and conclusions discussed here also apply to coffee-exporting countries throughout the tropics.

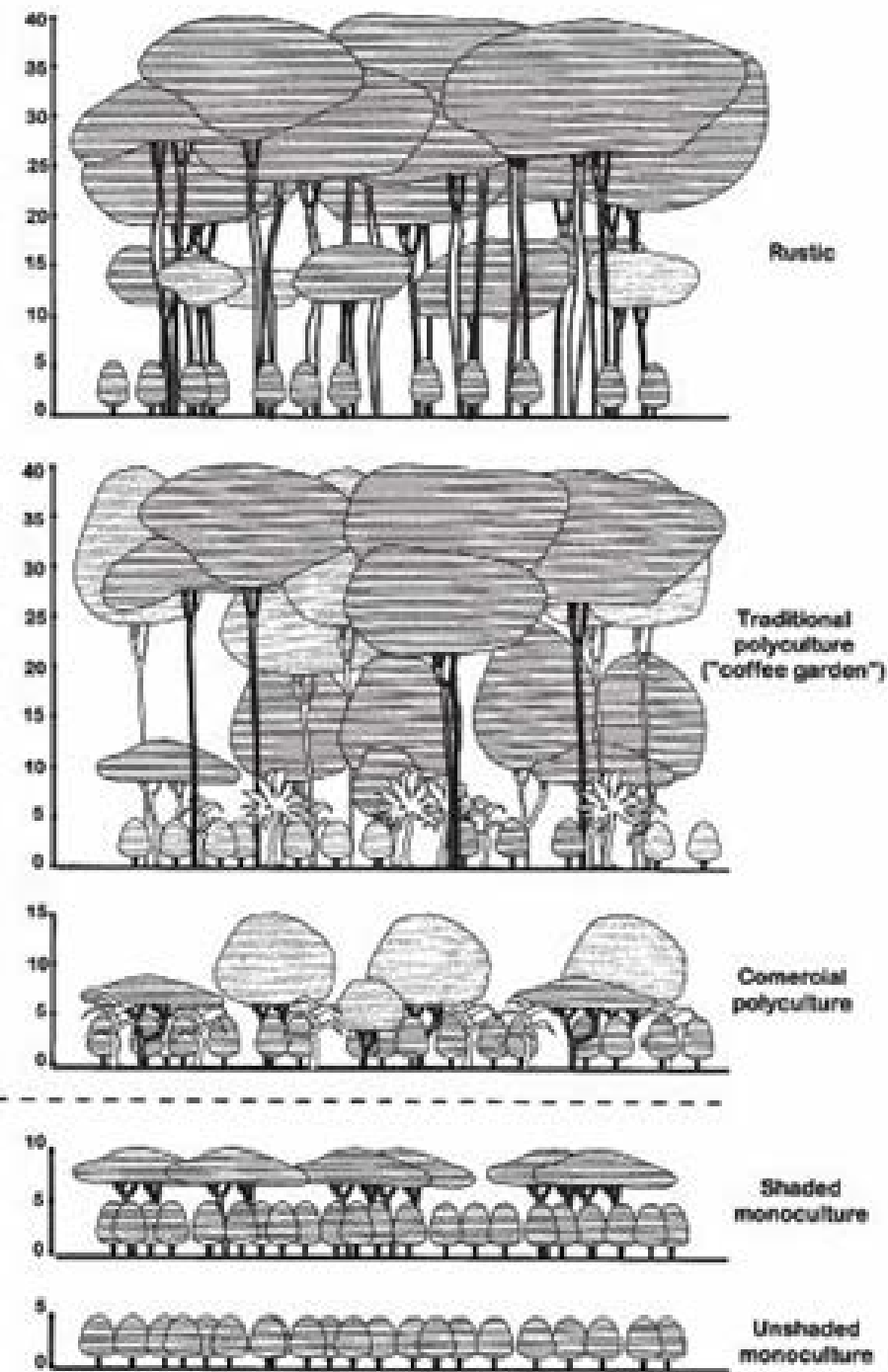
The economic importance of coffee

Coffee was introduced into the New World by the Dutch in 1723 (Wrigley 1988). During the twentieth century it has reached considerable importance in the world market as an export crop. Production has tripled in northern Latin America since World War II, and area under cultivation has nearly doubled (UNFAO Production Yearbooks).

It is hard to overestimate the importance that coffee production and exportation has had for northern Latin America. More than 32% of the world's coffee comes from this region, where it is the leading source of foreign exchange. Although coffee is produced on only 7.4% of the total arable land, coffee lands at present take up approximately 44% of the area of permanent cropland



• Bioscience 1996



+ Biodiversity conservation

Birds (Greenberg et al. 1997)

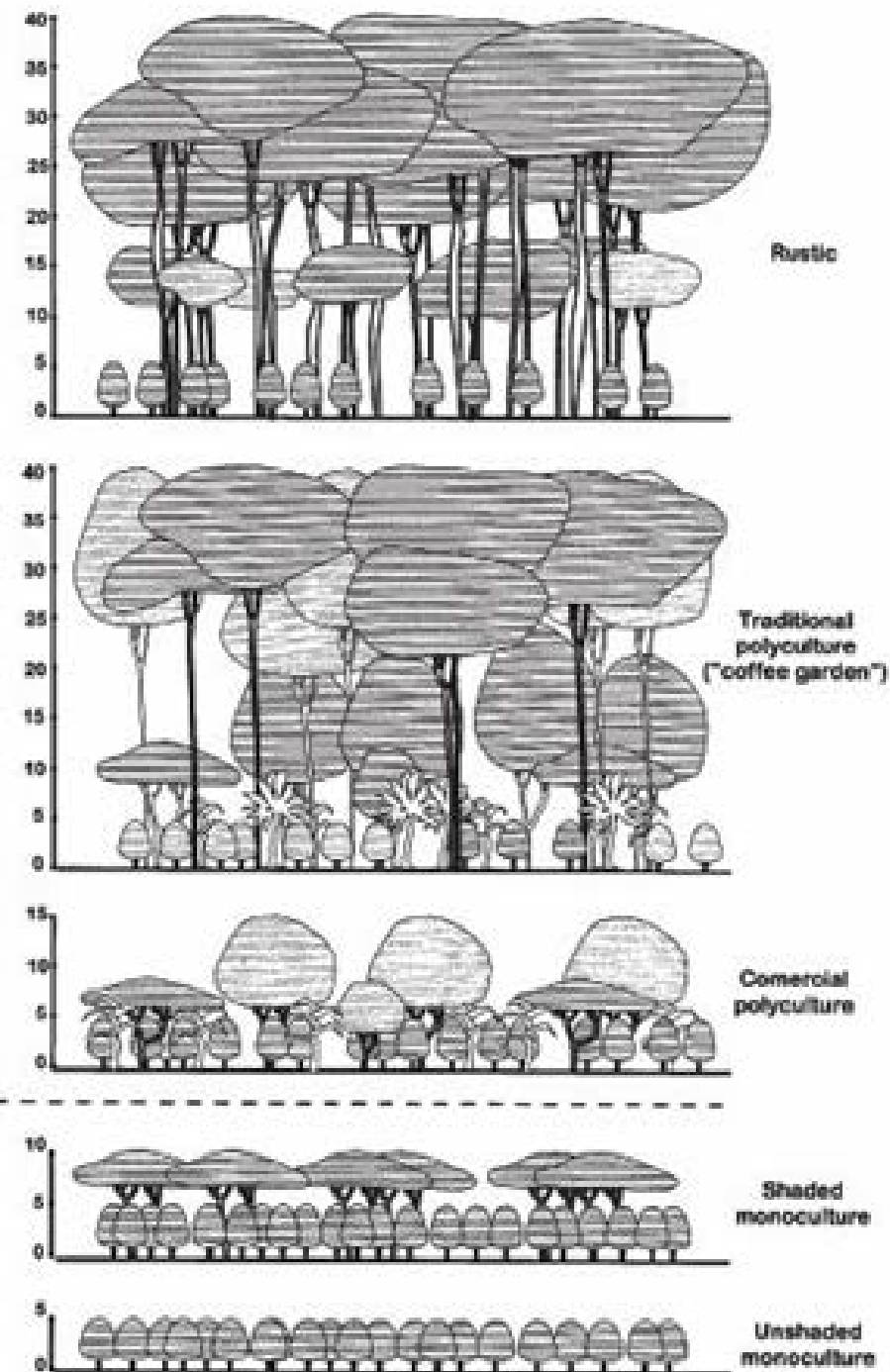
Ants (Perfecto & Vandermeer 1996)

Butterflies (Perfecto et al. 2003)

Epiphytes (Hietz 2005)

Mammals (Gallina et al. 1996)

Food plants



+ Ecosystem function

Less erosion (Ataroff & Monasterio (1997))


More carbon (Soto-Pinto et al 2010)

Less nutrient leaching (Tully et al. 2012)


Landscape connectivity (Rueda et al. 2014)




From tree to cup




Rainforest is grown in tree shaded plantations, which is natural protection for wildlife and prevents soil depletion.



Vittoria selects only 100% Arabica beans grown on Rainforest Alliance Certified farms.




Vittoria's blend of roasted Rainforest coffee helps assist farmers build a sustainable future while protecting the environment.




Vittoria is the choice of award winning restaurants & cafes.

Vittoria
100% ARABICA
Coffee



RAINFOREST
100% ARABICA

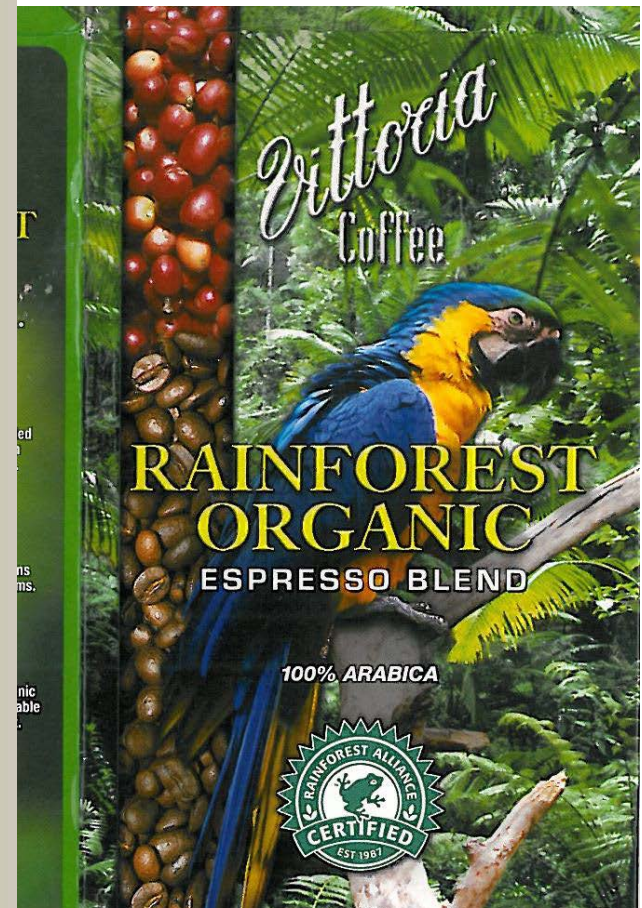


200g NET
GROUND



Sustainable Agriculture Standard

Sustainable Agriculture Network



- 2.8 Farms with Agroforestry Crops located in areas where the original natural vegetative cover is forest must establish and maintain, as part of the conservation program, permanent shade distributed homogenously throughout the plantations; the shade must meet the following requirements:**
- A minimum of 70 individual trees per hectare that must include at least 12 native species per hectare.**
 - A shade density of at least 40% at all times.**
 - The tree crowns must comprise at least two strata or stories.**

McCafé

Rainforest Alliance Certified™ Coffee



1 McCafé coffee is grown on Rainforest Alliance Certified™ plantations



2 The coffee bean begins life as a seed within the coffee cherry



3 Each bean is hand-picked by the local farm workers



4 Beans are expertly blended and roasted for quality and flavour



5 Enjoy the taste of McCafé knowing you are making a difference

Every Coffee served at McCafé® is made only with beans sourced from Rainforest Alliance Certified™ farms.

FAIRTRADE & ORGANIC COFFEES

● WILD NEW GUINEA



Grown wild in the highlands of New Guinea, this coffee is hand picked and sold by the roadside for cash income. Brilliant through a stovetop. It is a strong, fruity coffee with a clean taste. The aroma is amazing! Due to the geographical remoteness this is an uncertifiable, wild grown organic coffee.

● MEXICAN CHIAPAS

 ORGANIC Certified - (O.C.I.A.)

High Grown Arabica from Chiapas State. This striking coffee has a tantalising toasty taste with a crisp sweet riesling finish.

● EAST TIMOR MAUBISSE



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

A high grown arabica with a heavy rich liquor, well balanced creamy character and a chocolatey finish. This is a shade grown coffee that provides valuable habitat for migratory birds and other native wildlife.

● OKAPA ORGANIC



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

Wild grown coffee preserves the lush jungle, while providing local tribes people with a sustainable income. Big body, bold aroma and a heavenly honey finish. Very Exotic

● COLOMBIAN EXCELSIOR



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

From COSURCA Co-op. in South West Colombia. Very full body, balanced, with mellow caramel finale. If you love South American Coffee, you'll fall for this one.

● COSTA RICA



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

A Co-Operative grown low altitude Arabica with smooth medium body, winy taste & succulent blackcurrant hint.

● DOMINICAN REPUBLIC



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

Displays a mellow chocolate praline flavour with deep rich body. This shadegrown Arabica is a Divine Dominican indeed!!

● PERU CAFE FEMENINO



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

From the Penachi region of Peru, this coffee is produced by women. Sweet and silky with low acid, smooth and full in the cup, this coffee is a commitment to Quality and Equality in life. 50 cents from every Kilogram sold (in addition to the FAIRTRADE premium) goes directly back to the women growers in Peru.

● NICARAGUAN ORGANIC



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

A tasty tonic with nougat on the tongue, leaving a seductive, succulent, silky mouthfeel. A sustainably grown coffee from a farmers cooperative using progressive organic methods under lush shade trees.

● ETHIOPIAN SIDAMO



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

From the source... Dense clean butter biscuit in texture with dusted cocoa and praline hints. Organic Indulgence!

● PERU ORGANIC DECAF



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)  SWISS WATER FILTER PROCESS

One of the best decafs we have ever tasted. Still balanced and still displaying all the praline and fruit hints of our Peru Cafe Femenino.

● JULIET BLEND



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

Seductive tones of warm butter melt enriched by spiced milk cocoa, this low acid, big bodied blend will embrace your coffee passion.

● F.T.B.



FF FAIRTRADE Certified  ORGANIC Certified - (O.C.I.A.)

Our First FAIRTRADE Certified blend. A coffee with rich, succulent and creamy with a lingering cocoa plum finish. Great through an espresso machine and 100% FAIRTRADE Certified.

● O BLEND



 ORGANIC Certified - (O.C.I.A.)

Ethically sound caffeine from the global arena. Three Certified Organic Coffees in one cup. Creamy smooth caramel flavours with a long clean finish.

Jasper Coffee

CAFFEINE DEALERS

WHERE'S THE BUZZ?

RECAFFEINATE AT OUR RETAIL STORES

Located in the heart of funky Brunswick St, Fitzroy, our flagship store is the haunt of sophisticated caffeine lovers addicted to a daily dose of our excellent exotic coffees.

Open 7 Days Ph 03 9416 0921
267 Brunswick St FITZROY Vic.

Visit our Bustling Stall at Prahran Market.
Decadently Enticing & serving the best coffee going around.

Stall 105 PRAHRAN Market
163 Commercial Road,
South Yarra, Vic Ph 03 9827 8509

WHOLESALE

In Collingwood roars our Roasting Plant. Every weekday our Master Roaster transforms the finest green coffee into roasted coffee perfection.

The Buzz begins at Factory 3, Rear 260
Hoddle Street, Collingwood, Vic 3066

(03) 9416 1960

FAX (03) 9416 2283

wholesale@jaspercoffee.com

CUSTOMERS

Jasper Coffee is stocked by Quality Delis, Organic Groceries, Discerning Supermarkets and served in the Very Best Cafés.

www.jaspercoffee.com

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Analysis

Does eco-certification have environmental benefits? Organic coffee in Costa Rica

Allen Blackman ^{a,b,*}, Maria A. Naranjo ^{b,c,1}

From NASAA:

- promoting biodiversity by growing a variety of crops
- preventing soil erosion and improving soil quality
- conserving energy
- protecting wildlife, stream banks and watersheds
- avoiding the use of synthetic or artificially produced pesticides, herbicides, fertilisers or GMOs (genetically modified, transgenic organisms).

The world of logos



Cultivation



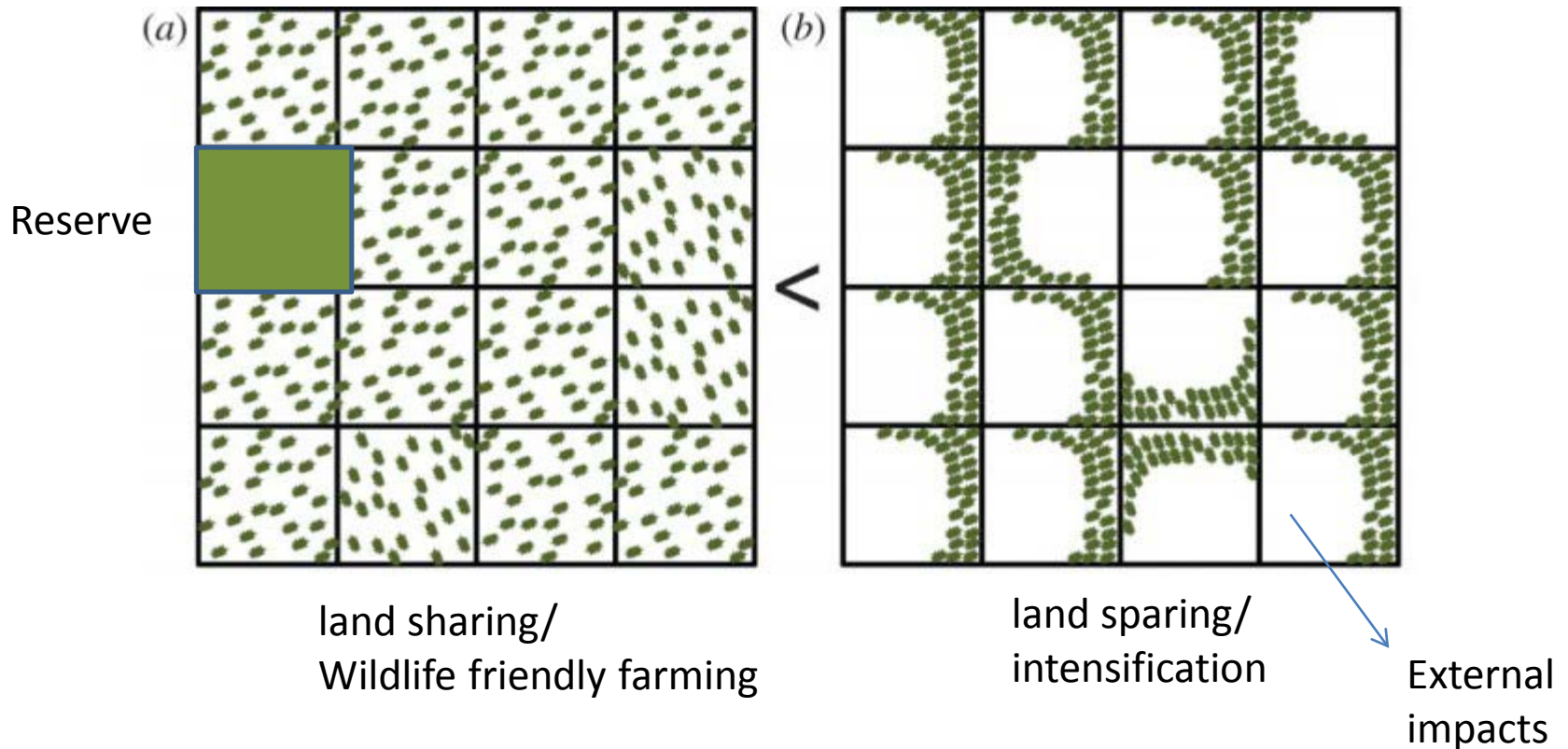
Import



Roasting & Packaging



Intensive agriculture as an alternative?

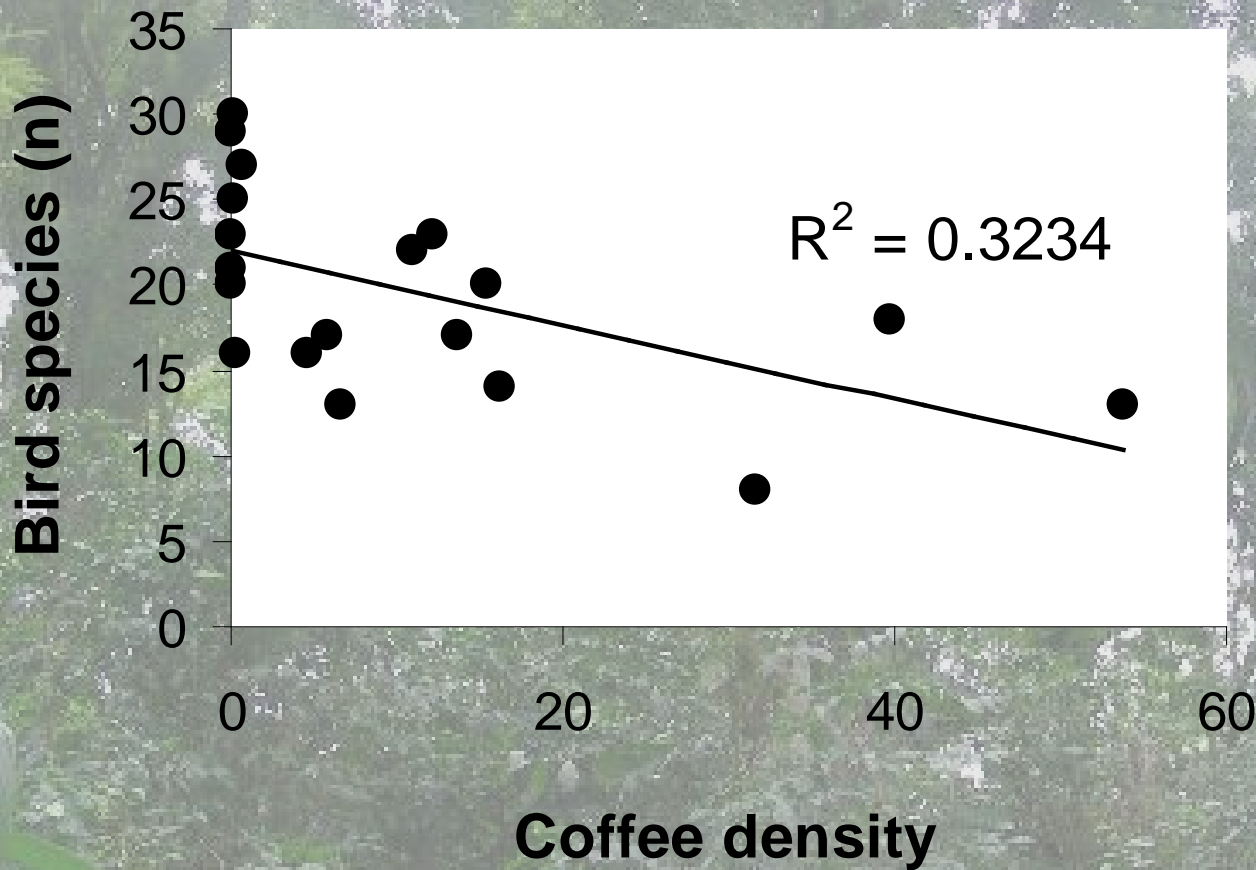


Farmers don't have a production target
Low prices increases demand
High profits lead to opportunity costs in natural habitat

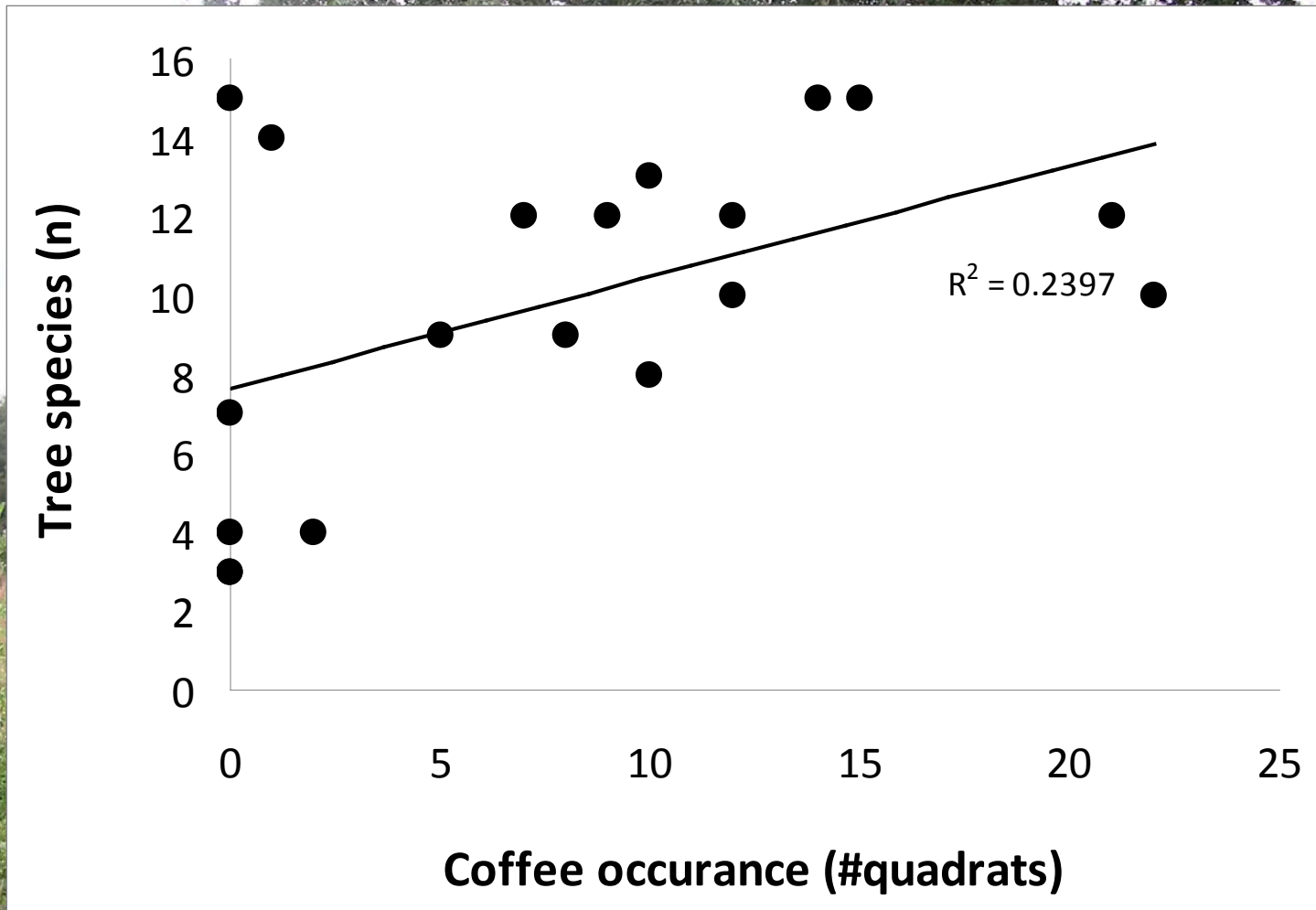
Coffee in Ethiopia



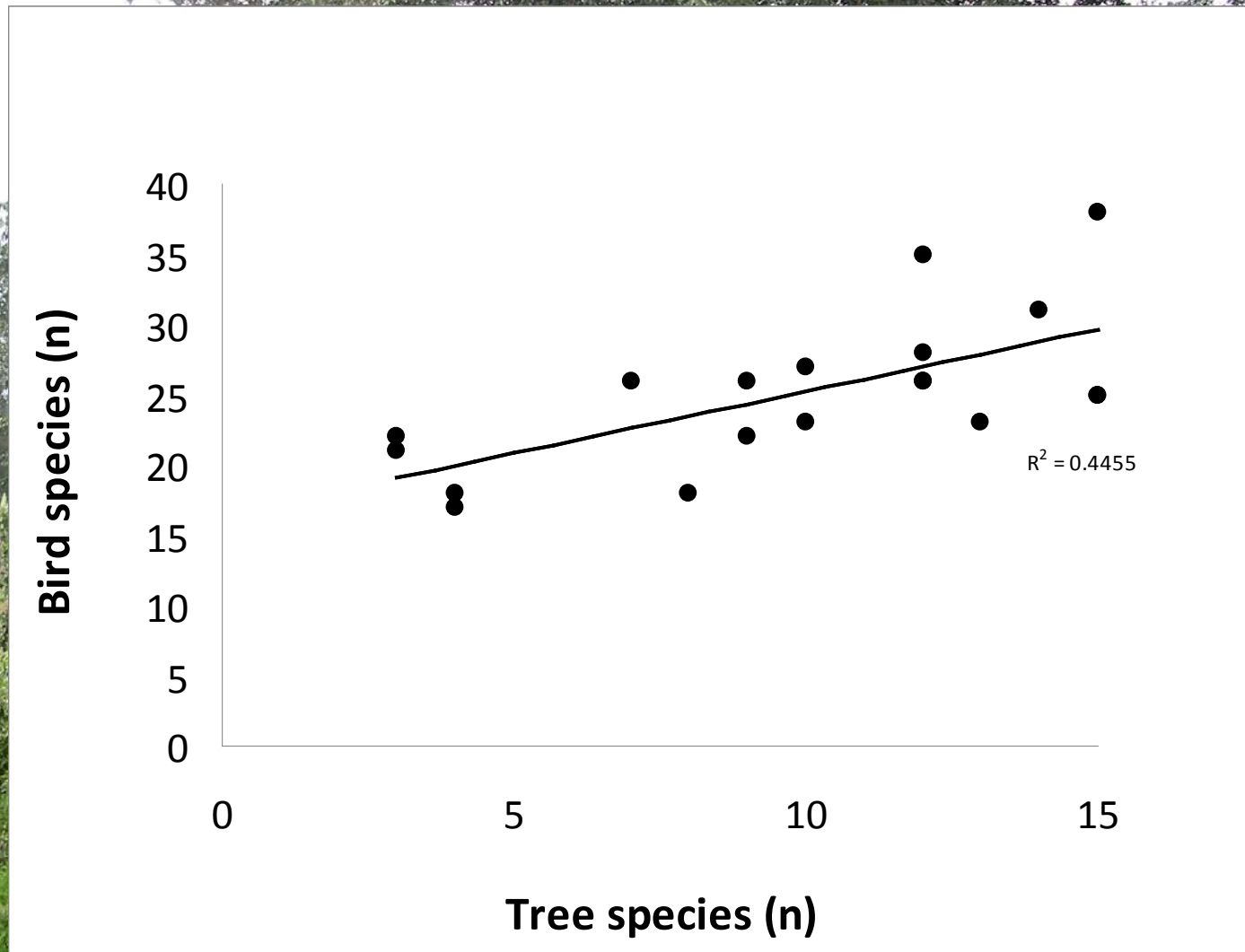
Forest coffee and birds



Farm coffee and trees



Farm trees and birds

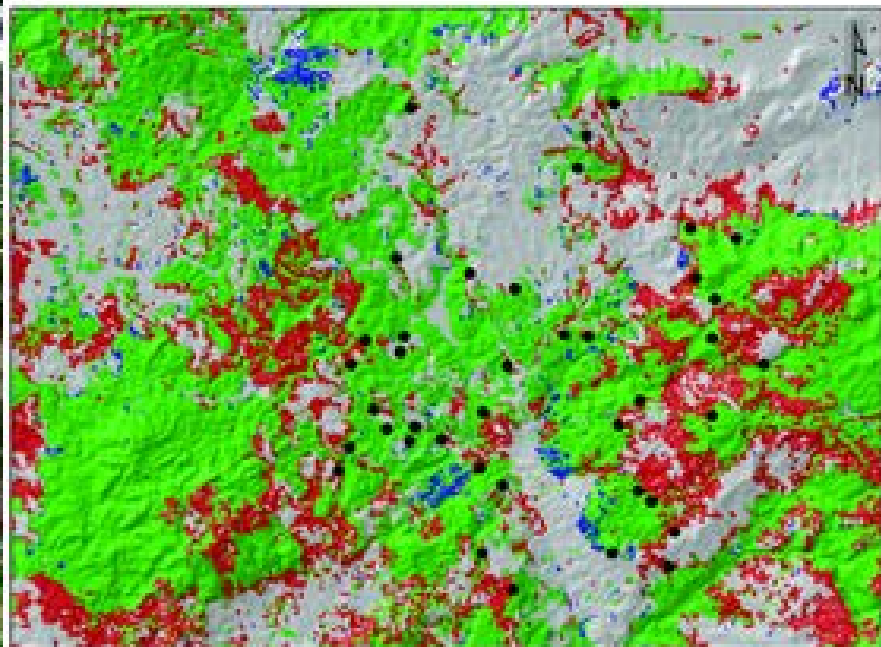


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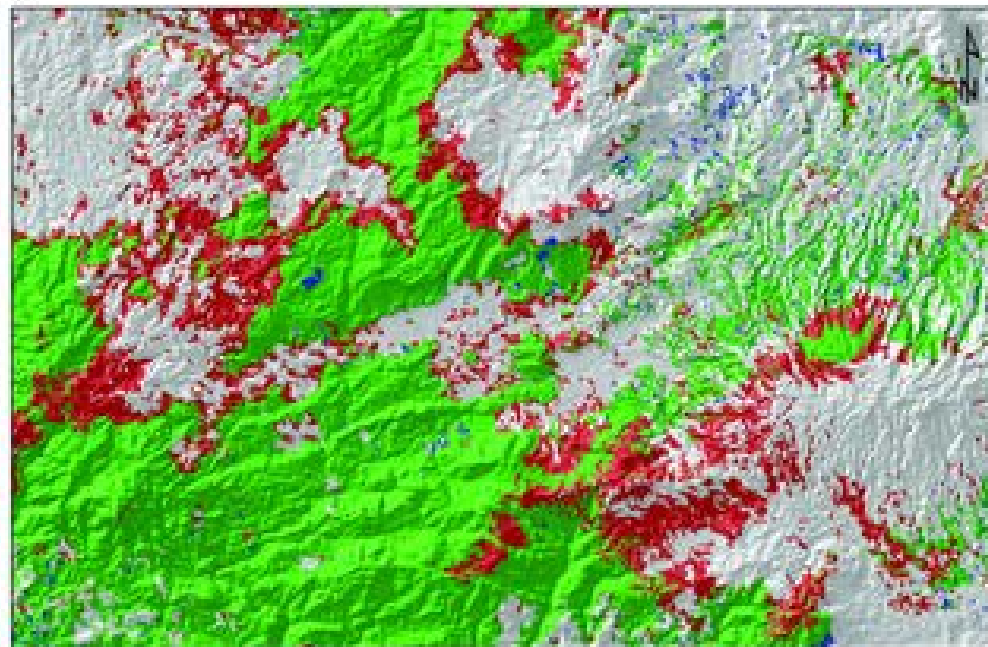
Effects of Coffee Management on Deforestation Rates and Forest Integrity

KRISTOFFER HYLANDER,* § SILESHI NEMOMISSA,† JOSEFIEN DELRUE,*
AND WOLDEYOHANNES ENKOSA‡

a)



b)



• Inventoried forest/agriculture edges

□ Continuous open land

■ Deforested areas

■ Reforested areas

■ Continuous forest

Conclusions – from Ethiopia

- On farm and in-forest activities are both important
- Coffee cultivation has mixed effects
 - Positive role of rehabilitation in farms
 - Negative in forests, but a trade-off exists
 - Coffee ensures forest longevity

Overall suggestions

- ‘bird friendly’ certification promotes environmental protection
- Organic certification capture many similar elements
- Agricultural intensification is promising but governance structures to control economic incentives aren’t in place
- Ethiopia presents different challenges – understanding landscape history may be key to best management



Thank you!

