

## Appendix

### Localities of collecting trips in Ethiopia, GTI project 1 (October 2010- July 2011)

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Pictures by Pauly Alain and Jean-Luc Boevé (from 3.x.2010 to 8.x.2010), Degefa Negessa (from 13.x.2010 to 2.ii.2011).

#### First mission Boevé & Pauly (3-8.x.2010)

3.x.2010 :

a) Sebeta (= Sabata, = Sebata) [conventional 8°55'N 38°37'E ; GPS : 8°54'23.8 N 38°35'26.7]  
2166m, (OROMIA)



*Bidens pachyloma*

b ) road Sebeta to Suba Forest (OROMIA)



Cassia alata



Cassia alata

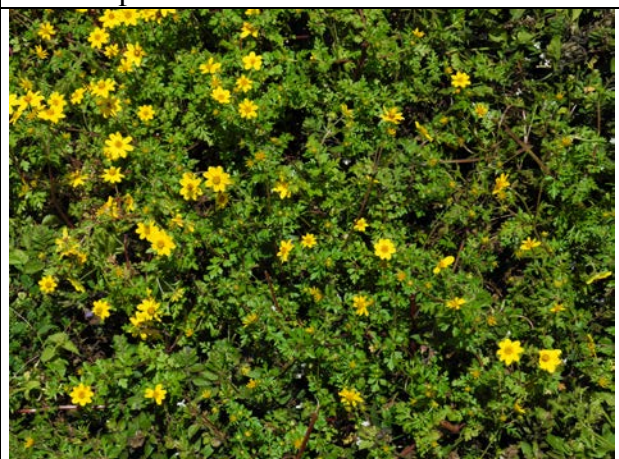
c) Suba Forest [conventional: 8°58'N 38°32'E] (OROMIA)



Bidens sp.



Fabaceae



d) road Suba to Holeta (station Brassicaceae) (OROMIA)



J- L. Boeve and Degefa in Brassica crop



Brassica spp.

e) road Suba to Holeta (station blue Lamiaceae) (OROMIA)



Plectranthus garckeianus (Lamiaceae)



4.x.2010:  
Sebeta [conventional 8°55'N 38°37'E] (OROMIA)

5.x.2010:  
Holeta (=Genet) [conventional: 9°04'N 38°30'E] (OROMIA)



J.-L. Boeve and trainees

A. Pauly and trainees collecting on *Bidens*  
*pachyloma*

6.x.2010

a) Akaki [conventional: 8°52'N 38°47'E] (OROMIA)



Crops (*Brassica* sp.)



*Echinops hispidus* (Asteraceae)

b) Mojo [conventional: 8°36'N 39°07'E] (OROMIA)



Maize with *Guizotia scabra*



Fallow land with *Helianthus annuus*  
(sunflower)



Guizotia scabra (Asteraceae)



Sunflowers

c) Koka [conventional: 8°26'N 39°02'E; GPS: 8°22'25.2N 39°00'07.1E], 1609m (OROMIA)



Heliotropium cinerascens (Boraginaceae)



Anethum graveolens (Apiaceae)

7.x.2010

a) Sululta [conventional: 9°11'N 38°45'E] (OROMIA)



Echium plantagineum (Boraginaceae)



Echium plantagineum

b) Chancho [conventional: 9°20'N 38°44'E] (OROMIA)



c) Muketuri [conventional: 9°33'N 38°52'E] (OROMIA)



*Achyranthes aspera* (Amaranthaceae)

d) Debre Libanos [conventional: 9°43'N 38°52'E ; GPS : 9°43'36.6N 38°48'20E] , 2573m (OROMIA)



*Plectranthus punctatus* (Lamiaceae)

8.x.2010

Baakelo 14km N. Debre Birhan [conventional 9°41'N 39°32'E; GPS: 9°42'25.4N 39°38'11.4E], 2880m (AMHARA)



*Salvia schimperi* (Lamiaceae)



*Carduus camaecephalus* (Asteraceae)



*Lippia adoensis* (Verbenaceae)





Plectranthus ornatus (Lamiaceae)



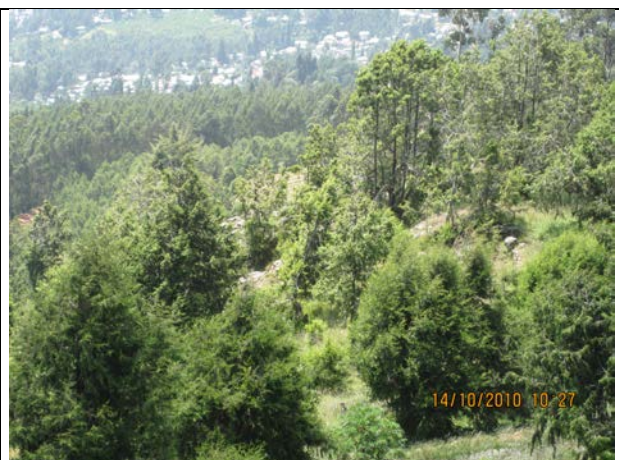
Plectranthus ornatus (Lamiaceae)

12.x.2010, between Kolobo [conventional 9°04'N 38°44'E] and Genet (OROMIA).

13.x.2010, Sabata [conventional 8°55'N 38°37'E] (OROMIA)



14.x.2010, Mt Entoto [conventional 9°06'N 38°42'E; GPS: 9°05'09,5N 38°45'36E] (2850m) (ADDIS ABEBA)



10-16.x.2010, Holeta (leg. Zewdu) (OROMIA)

17.x.2010, Muger [conventional 9°38'N 38°37'E], 60 km N. Holeta (leg. Zewdu) (OROMIA)

**First trip to Bale Mountains: [OROMIA Region, BALE zone]  
(collectors: Degefa Negessa, Zewdu Ararso, Ketema Amberbir and Betelehem Wondwosen)**

20.x.2010,  
Sanate Park (= Sanetti Plateau ?) [conventional 6°40'N 39°40'E] and Mt Batu (BALE)



21.x.2010, Goba [conventional 7°01'N 39°59'E] (BALE)

21.x.2010,  
20 km E. Robe [conventional 7°08'N40°00'E] (BALE)



22.x.2010, Ali [conventional 7°15'N 39°56'E] (BALE)

22.x.2010, Between Ali and Gasera or Gasera [conventional 7°22'N 40°13'E] (BALE)



23.x.2010, Goro [conventional 6°59'N 40°30'E] (BALE)



24.x.2010, Sebsibe Cave (= Sebsibe Washa) [conventional 7°03'39"35'E], between Dinsho and Adaba (BALE)

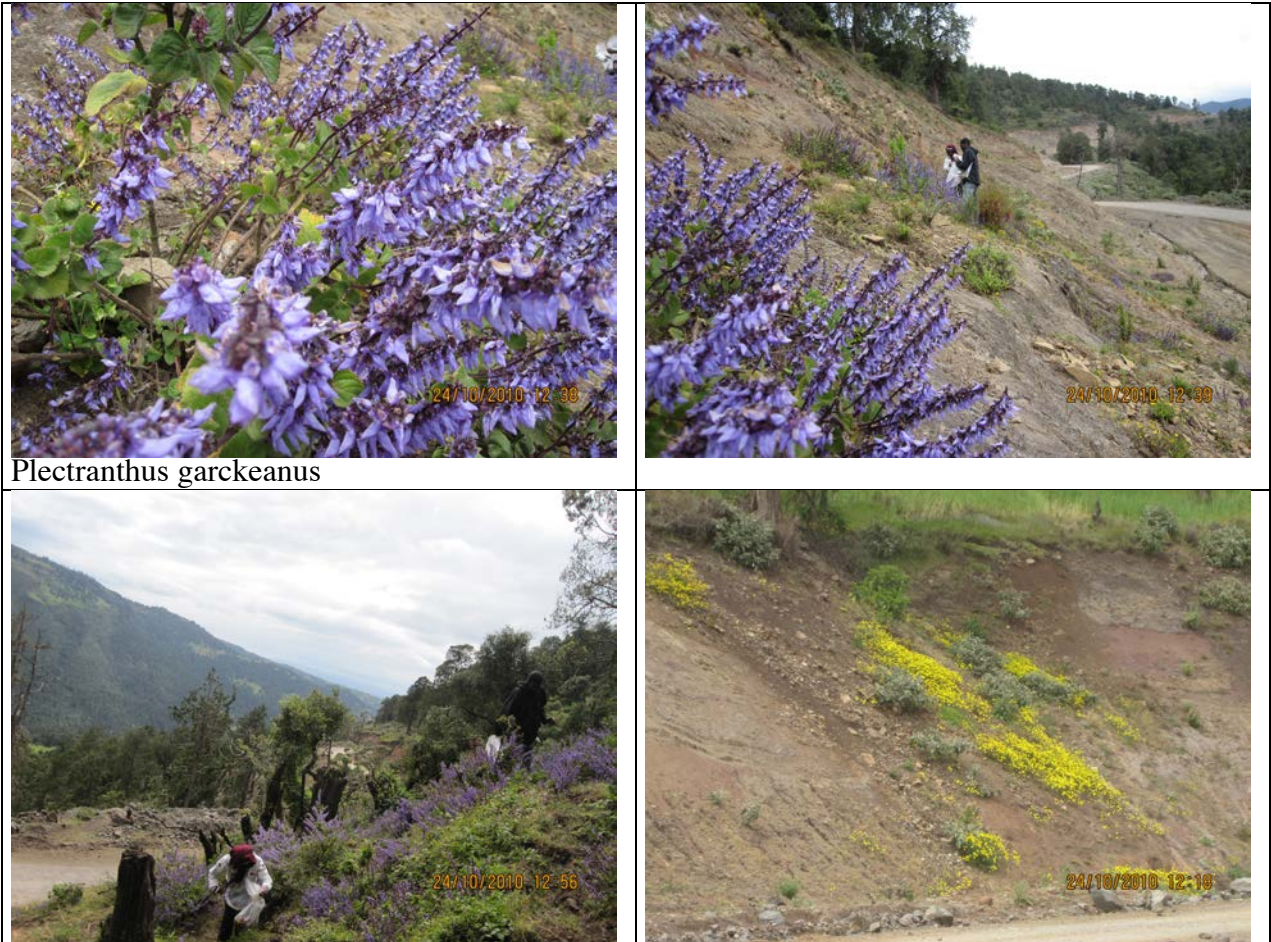


*Senecio fresenii*

*Bidens macroptera*

24.x.2010, Cheleleka forest [7°01'N 39°30'E], between Dinsho and Adaba (BALE)





*Plectranthus garckeianus*

25.x.2010, Darkina Meskeli Forest (7°01'N 39° 28'E) (between Adaba and Dinsho) (BALE)

25.x.2010, Dodola (6°59'N 39°11'E) (BALE)

25.X.2010, Kofale (7°04'N 38°47'E), 2200m, between Sashemene and Dodola (BALE)

**Transect Mechara (OROMIA Region, WEST HARARGHE zone) (rec. Degefa)**

30-31.x., 3, 10, 13.xi.2010, Mechara (leg. Degefa) [conventional: 8°36'N 40°19'E], 1800 m

6,7,9.xi.2010, Sororo, between Gelemso and Asbe Teferi (leg. Degefa) [? +- 8°54'N 40°47'E]

**Transect Gedo (rec Zewdu):**

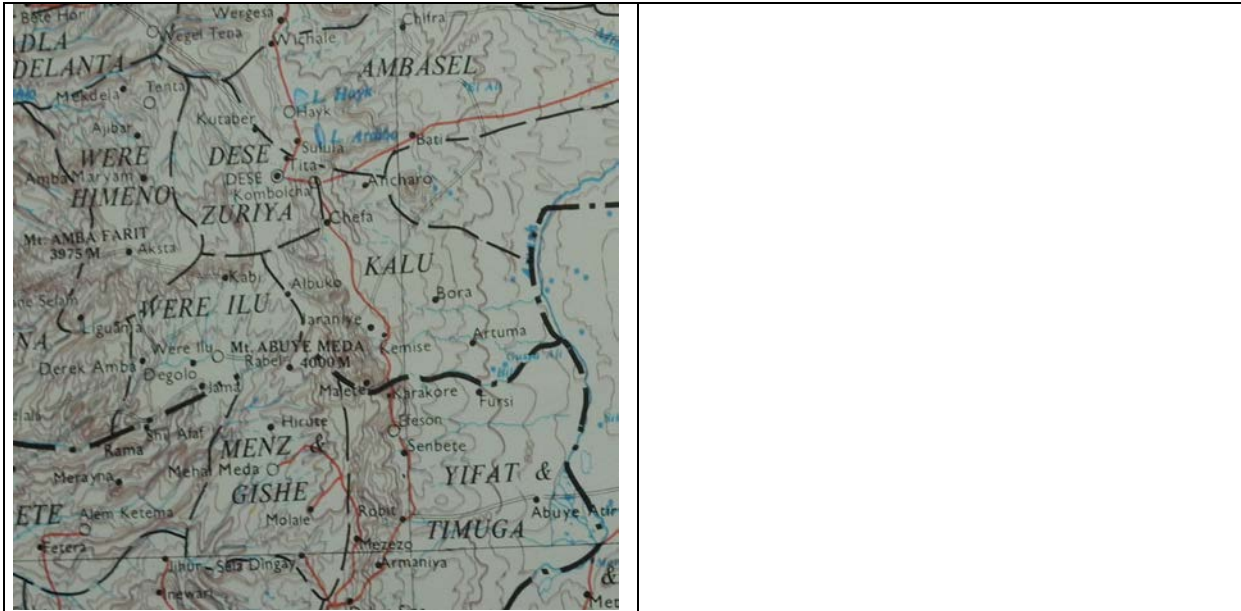
29-30.x.2010, Finchaa Dam between Gedo and Shambu, 2100m, 9°33'N 37°23'E (leg. Zewdu) (OROMIA)

4.xi.2010, Holeta (leg. Zewdu) (OROMIA)

6-7.xi.2010, Guder (between Ambo and Gedo) (leg. Zewdu), 8°58'N 37°44'E, 1700m, (OROMIA)

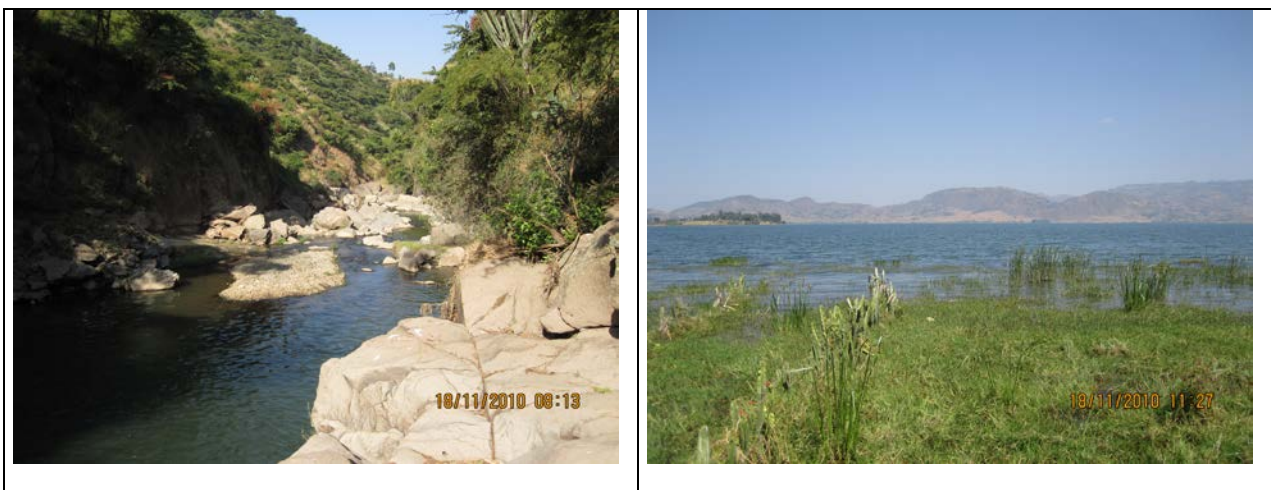
14.xi.2010, Bako (between Tibe and Sire) (leg. Zewdu) Google map: 9°07'35"N 37°03'14"E (OROMIA)

**Trip to Dese (= Dessie) [AMHARA]  
(collectors: Degefa Negessa, Zewdu Ararso, Ketema Amberbir and Betelehem Wondwosen)**



17.xi.2010, Pasomila (Paso Mile) (between Hayk and Wochale) [Wuchale: conventional 11°30'N 39°36'E]

17-18.xi.2010, Hayk [conventional 11°18'N 39°41'E]  
18.xi.2010, Lake Hayk [conventional: 11°20'N 39°43'E] (2030m)





19.xi.2010, Haragoma (Mt Haregoma) (between Dese and Kombolecha) [11°06'N 39°41'E]



20-21.xi.2010, Chefawoledi (Chefa Woledi) [conventional: 11°00'N 39°46'E]



*Hygrophila auriculata* (Acanthaceae)



21.xi.2010, Kemise [conventional: 10°43'N 39°52'E]

22.xi.2010, Karakore [conventional: 10°25'N 39°56'E]

22.xi.2010, Efrata (mid way between Robit and Senbete) [10°09'N 39°59'E]



Aloe berhana (Aloeaceae)



**Transect Holeta to Gedo (rec. Zewdu):**

25 -26.xii.2010, 1 & 4.i.2011, Holeta (OROMIA)

12.i.2011, Bako [Google map: 9°07'35"N 37°03'14"E], between Tibe and Sire (OROMIA)

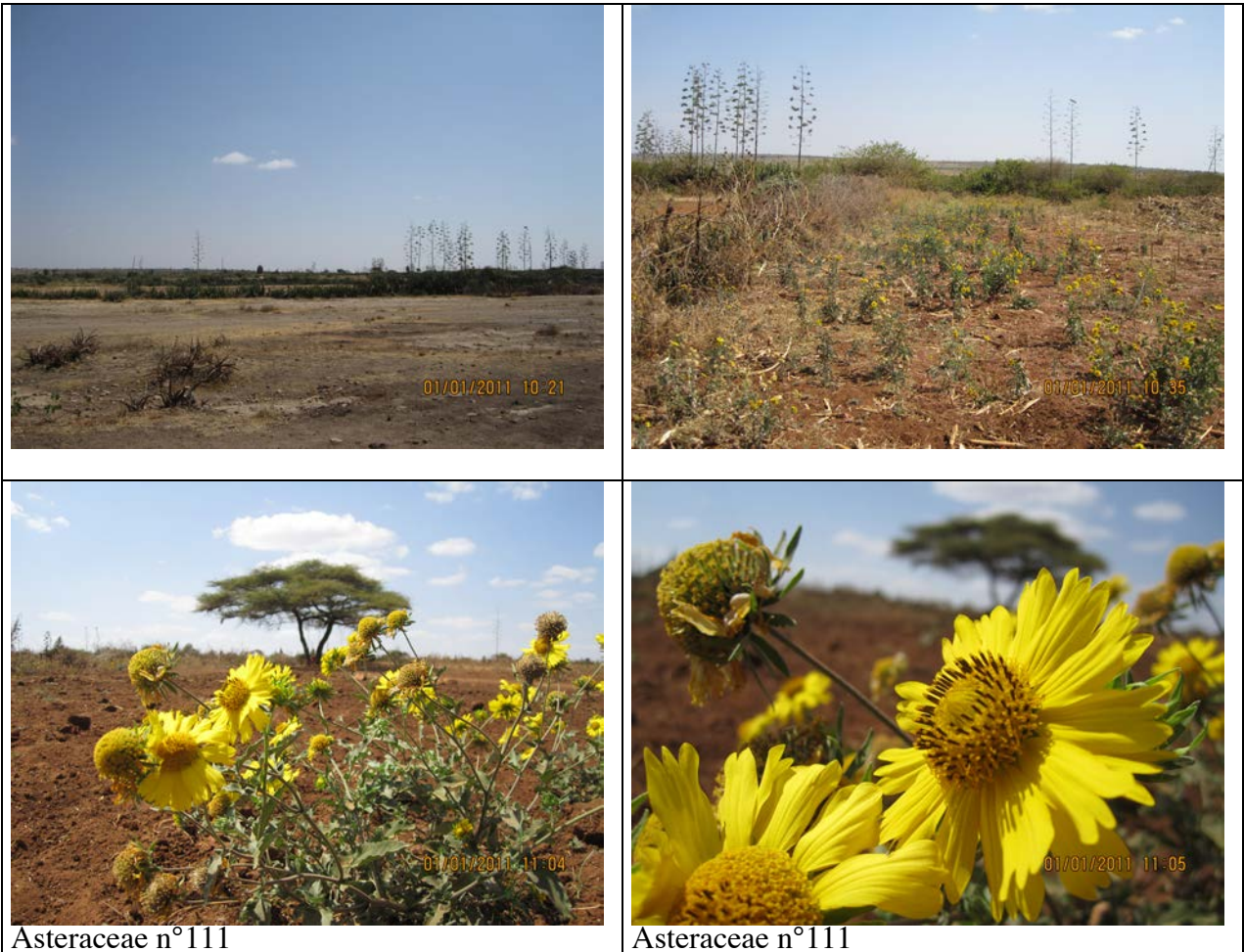


**Transect to Mechara (rec Degefa) [OROMIA Region, WEST HARARGHE Zone]:**

4,5,6,16,18,19,25.xii.2010; 16, 17, 21.i.2011, Mechara (Machara), 1800 m

29.xii.2010, Michata [Google map: 8°34'27"N 40°19'21"E]

1.i.2011, Milkay, 50 km S. of Mechara, 8°08'N 40°29'E




Asteraceae n°111

Asteraceae n°111

2.i.2011, Tutis, 40 km SW of Machara (8°15'N 40°07'E ?).



	Asteraceae n°111
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5.i.2011, Gadullo [GPS 8°23'30"N 40°23'37"E], 1625m



6.i.2011, Sororo





Vernonia



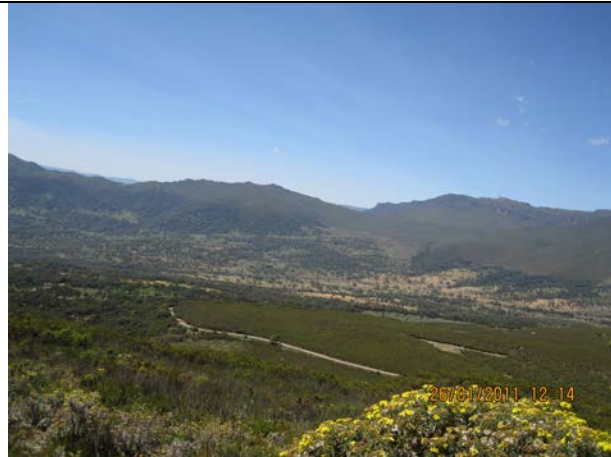
Flowering shrub n°112

**Second trip to Bale (OROMIA Region, BALE Zone)  
(collectors: Degefa Negessa, Zewdu Ararso, Ketema Amberbir and Betelehem Wondwosen):**

24.i.2011, Ssashemene [Google map: 7°11'56"N 38°37'30"E] , between Ziway and Awassa

26.i.2011, Mt Bale (Sanete) [Google map: 6°46'29"N 39°43'35"E], between Goba and Dola-Mena





*Senecio myriocephalum* Sch.-Bip. Ex A. Rich  
(Asteraceae)



? *Inula confertiflora* (Asteraceae)



*Salvia nilotica* Juss.ex Jacq. (Lamiaceae)



27.i.2011, Harena Forest [Google map: 6°34'48"N 39°43'30"E], between Goba and Dola Mena (Dello)

29.i.2011, Dola Mena (Dallo, Dello Manna) [Google map: 6°24'58"N 39°50'30"E], between Goba and Legele Borena

30.i.2011,

a) Harena Forest [Google map: 6°34'48"N 39°43'30"E], between Goba and Dello

b) Dola Mena (Dallo) [Google map: 6°24'58"N 39°50'30"E], between Goba and Legele Borena

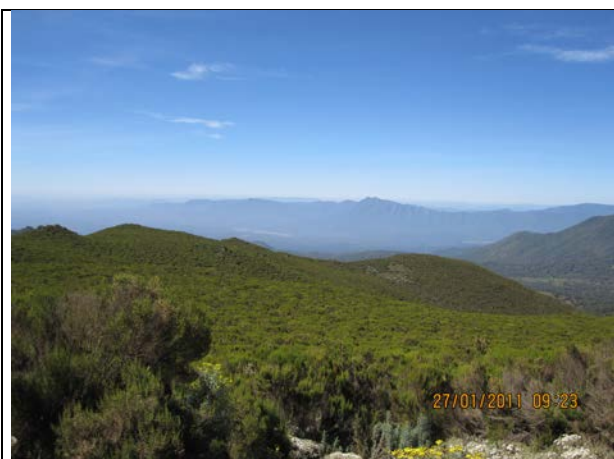




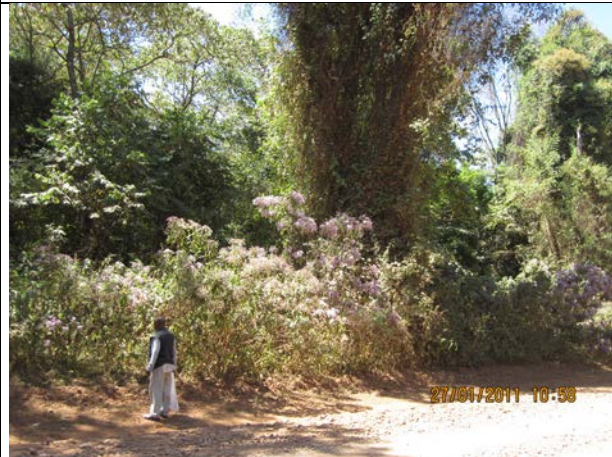
*Vernonia auriculifera* Hiern. (Asteraceae)



friche avec *Hypoestes forsakolii* (Vahl) R. Sch. (Acanthaceae)



? *Helichrysum* (Asteraceae)



*Vernonia auriculifera* (Asteraceae)

31.i.2011, Sof'Omar (Sofumer) [Google map: 6°13'06"N 39°46'18"E]





Aloe berhana et Aloe sp.

Aloe berhana et Aloe sp.

1.ii.2011, Bekele Forest [Google map approximately 7°01'N 39°34'E], midway between Adaba and Dinsho.







*Echinops macrochaetus* A. Rich. (Asteraceae)



*Echinops macrochaetus* A. Rich. (Asteraceae)



*Senecio lyratus* Forssk. (Asteraceae)



*Senecio lyratus* Forssk. (Asteraceae)

1.ii.2011, Dinsho National Park (Google map: 7°06'N 39°45'E)





*Hypericum revolutum* Vahl. (Hypericaceae)



*Hypericum revolutum* Vahl. (Hypericaceae)

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**Jimma Trip (16-20 June 2011) (collectors: Degefa Negessa and Ketema Amberbir )  
(OROMIA)**

16-17.vi.2011, Didessa river, north of Jimma, after Agaro, near Dembi (Google map: 8°02'N  
36°28'E) (OROMIA).



19.vi.2011, Sokoru (conventional: 7°55'N 37°25'E) (OROMIA).



20.vi.2011, Gibe (conventional: 7°45'N 37°39'E) (OROMIA).



**Awash and Awasa trip (20-23.vii.2011) (collectors: Zewdu Ararso, Ketema Amberbir and Betelehem Wondwosen):**

20-21.vii.2011: Awash National park, between Metahara and Awash Town [Google map: 8°55'N 40°02'E] (AFAR)

23.vii.2011: Tikur Wuha (Wondo Genet), between Awasa and Shashemene [Google map: 7°01'N 38°34'E] (OROMIA)

## The Zoological Museum in Addis Ababa



a. - Entrance of the Museum



b. - Insect room (With Dr Seyoum and Katama)



c. - Mammal room



d. - Bird room



e. - Nile crocodile in bird room



f. - Bird gallery

Fig. 1. The Zoological Museum in Addis Ababa

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a. - Butterfly cabinets



b. - Amphibian room



c. - Mammals



d. - Hymenoptera cabinet.



e. - Reserve to be managed



f. - Bee collections

Fig. 2. The Zoological Museum in Addis Ababa

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a. - Holeta Bee Research Centre



b. Entrance



c. - Mission of the Centre



d. - Gardens



e. -



f. - Trainees in Holeta

Fig. 3. Holeta Bee Research Station

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a. - Traditional fores beekeeping



b. - Back yard beekeeping



c. - Modern hives



d. - Tree log hives (Gaagura Adaa)



e. - Different tools for honey hunting, from Meznenger people, Gembella.



f. - Tree log hive (Gaagura Adaa)

Fig.4. - The Museum in the Holeta Bee Research Centre.



a. - Different tools for honey hunting, from Meznenger people, Gembella.



b. - Beekeeper's smooker.



c. - Smooker.



d. - Log hive from Bale area.



e. - Honey containers (made from wood, animal skin and clay pot).



f. - Teji containers

Fig. 5. The Museum in the Holeta Bee Research Centre.



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a. - Traditional teji drinking utensils



b. - Deep log barrel for teji.



c. - Chereka top bar.



d. - Kenya top bar.



e



f

Fig. 6. The Museum in the Holeta Bee Research Centre.

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Fig. 7. - The Museum in the Holeta Bee Research Centre.



Authors

