

# The use of EPPPO Codes in tropical weed science

**Thomas Le Bourgeois<sup>1</sup>, Pascal Marnotte<sup>2</sup>, Marion Schwartz<sup>2</sup>**

**Cirad – UMR AMAP<sup>1</sup>, UR AIDA<sup>2</sup>**

**France**

# Context and needs in weed science

- **Weed communities studies** → Recording species in the field
  - Storing, agregating, managing data
  - Analysing data
- **Collecting specimens, pictures** → Naming and storing pictures, drawings, etc.
- **Producing, sharing, spreading knowledge** → Facilitating access to knowledge

A background image of numerous small, vibrant pink flowers with green foliage, likely a species of Malvaceae. The flowers are in various stages of bloom, creating a dense and colorful scene.

# The challenge

**For each taxon**

**One precise and short name, unambiguous, and not changing**

**How do we use EPPO Codes ?**

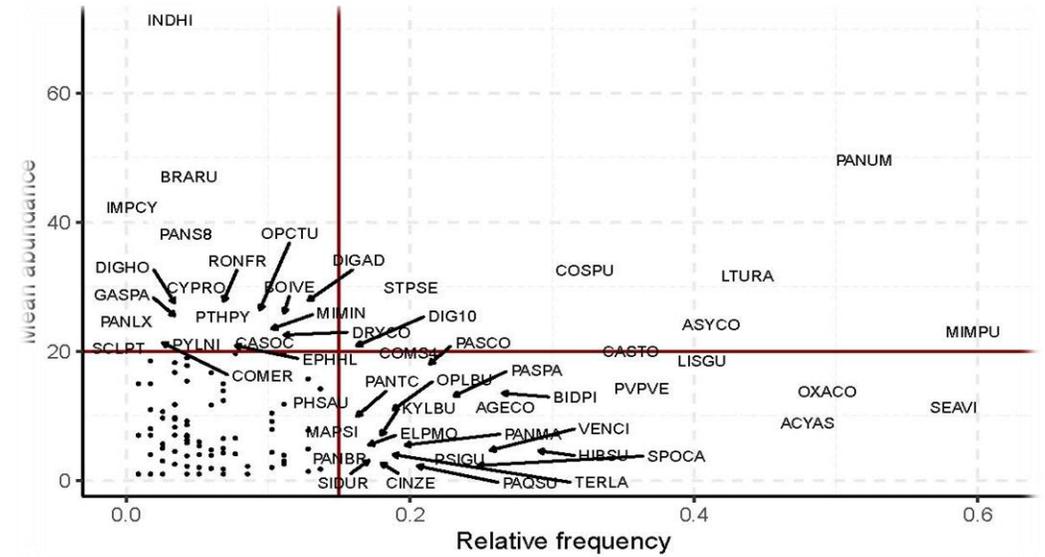
- **Weed communities studies** → Recording species in the field
  - Storing, agregating, managing data
  - Analysing data



## Weed survey

	CAM-MAR-01	CAM-MAR-02	CAM-MAR-03	CAM-MAR-04
ACCS1	0	0	0	0
ACQAM	0	0	0	0
AESIN	0	3	0	0
ALZRU	0	0	0	0
ARKHO	0	0	0	0
APIBS	0	0	0	0
BGASU	0	2	0	2
CNPFF	0	0	0	0
PESRA	0	0	0	0
CASMI	0	0	0	0
CHRS1	3	0	0	0
CJLAM	0	0	1	0
COMNG	0	0	0	0
COQPE	0	0	0	0
COGSA	0	0	0	0

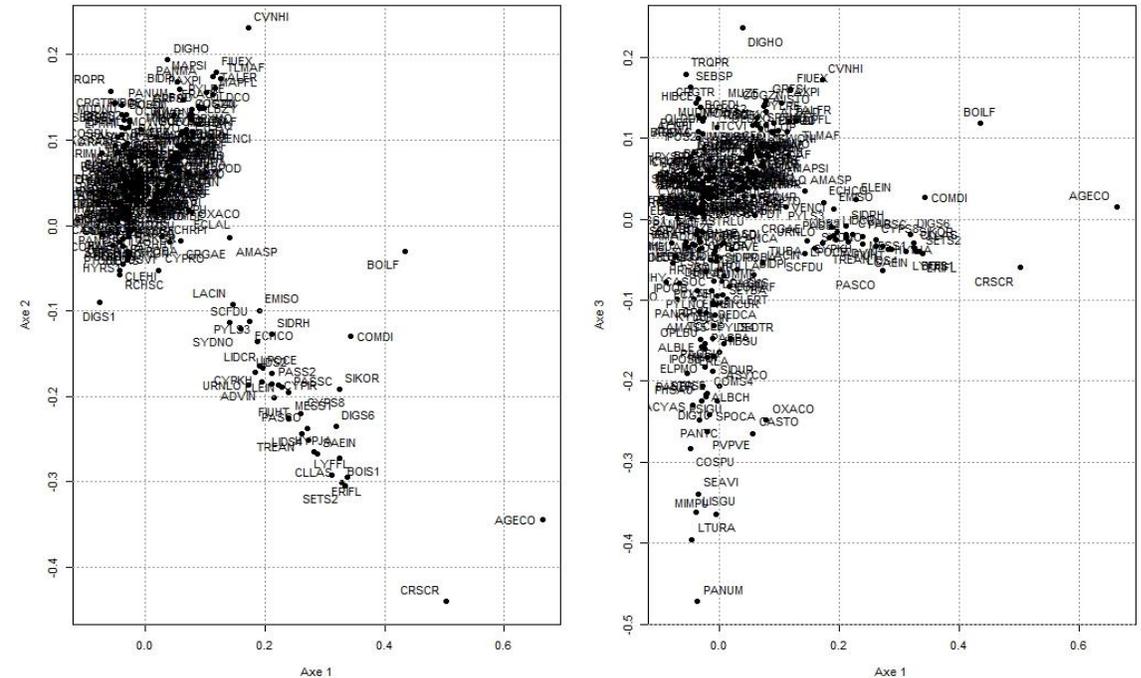
## Infestation diagram



## Ecological profile

Species	Abs. frequency	Species. entropy	Mutual. info	Tropical	Altitude-tropical	Wet-tropical	Dry-tropical
MUDNU	296	0.281	0.169	0	4	5	962
CRGTR	273	0.265	0.164	0	0	0	982
TRQPR	1033	0.658	0.148	91	54	18	423
URNLO	576	0.453	0.148	15	378	27	0
BRANA	241	0.241	0.143	0	0	0	982
IPOS2	238	0.239	0.137	0	0	4	974
CRIMI	880	0.597	0.123	95	1	256	0
CITLA	277	0.268	0.115	38	0	0	819
CLEHI	282	0.271	0.104	0	434	0	0
BIDPI	1396	0.778	0.102	74	71	224	7
DIGS1	278	0.268	0.102	0	434	0	0
RHSC	277	0.268	0.102	0	434	0	0
ELEIN	1240	0.73	0.097	42	203	145	17
PANMA	846	0.583	0.094	115	3	215	1
STYGN	257	0.253	0.094	0	434	0	0
BOEDI	636	0.484	0.093	91	0	76	420
AGECO	1283	0.744	0.09	54	149	185	2
SEBSP	155	0.172	0.089	0	0	0	982

## Multivariate analysis



- Collecting specimens, pictures → Naming and storing pictures, drawings, herbarium specimen, etc.





acnau\_20120109\_121021.jpg



acnau\_20120109\_121035.jpg



acnau\_20120109\_121058.jpg



acnau\_20120109\_121154.jpg



acnau\_20120109\_121241.jpg



acnau\_20120228\_121310.jpg



acnau\_20120228\_121327.jpg



acnau\_20141022\_080650.jpg



acnau\_20141022\_080702.jpg



acnau\_20141022\_080722.jpg



acnau\_20141022\_080744.jpg



acnau\_20141022\_080752.jpg



acnau\_20141022\_091730.jpg



acnhi\_20020423\_150048.jpg

ageho\_20110521\_100449.jpg

EPPOcode\_date\_h/m/s.jpg

# Naming and storing pictures



acnhi\_20080609\_101234\_09.jpg



acnhi\_20080609\_101234\_10.jpg



acnhi\_20090127\_121147.jpg



acnhi\_20090127\_121231.jpg



acnhi\_20090127\_121448.jpg



acnhi\_20090127\_121716.jpg



acnhi\_20090127\_121836.jpg



acnhi\_20090203\_174929.jpg



acnhi\_20090203\_175211.jpg



acnhi\_20110331\_112140.jpg



acnhi\_20110331\_112235.jpg



acnhi\_20110406\_085238.jpg

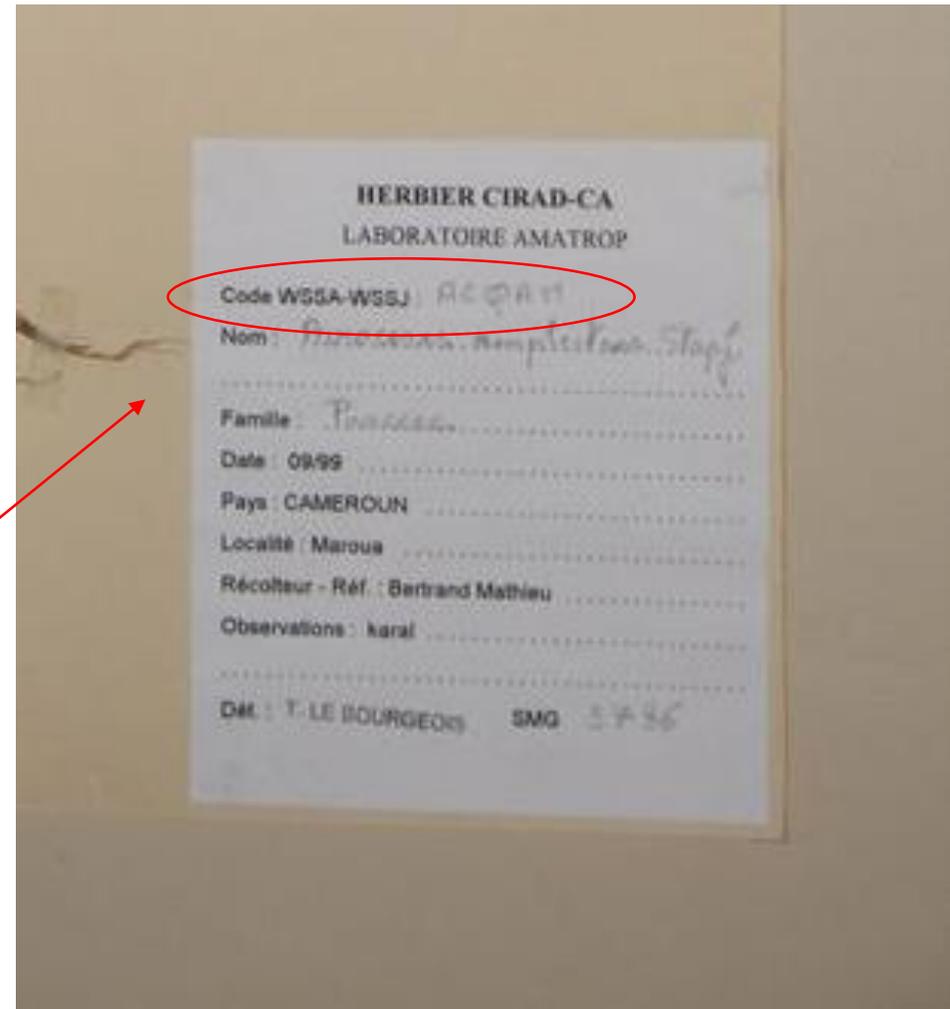
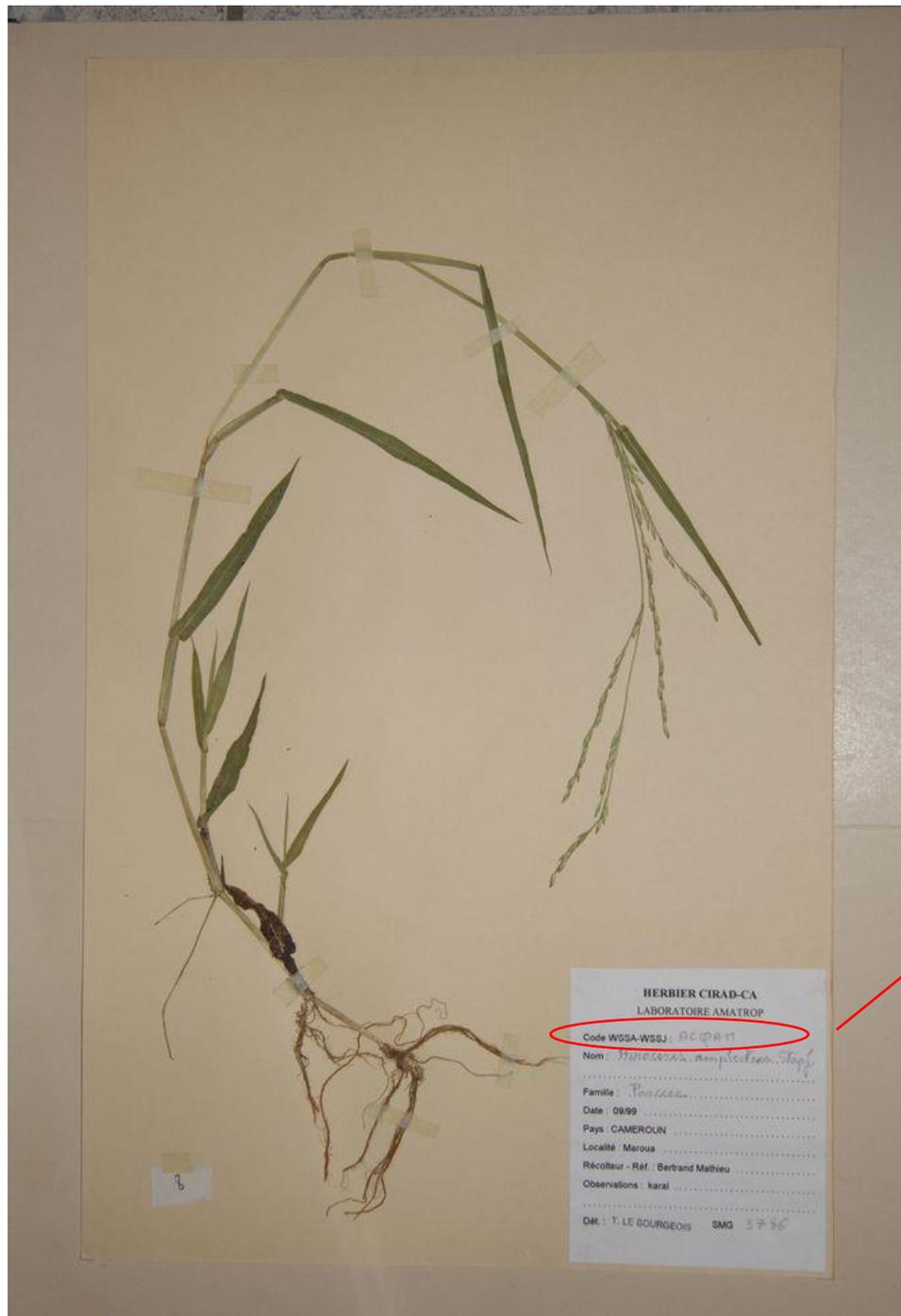


acnhi\_20110406\_085337.jpg



acnhi\_20110406\_085530.jpg

## Naming herbarium specimen





# Weed Identification and Knowledge in the Tropical and Mediterranean areas

## WIKTROP

Species Observations <sup>1</sup> Maps Documents Contribute Discussions Datasets Pages More

### Welcome to WIKTROP Portal v2.0

WIKTROP is a geographical extension of WIKWIO portal to tropical and mediterranean areas around the world. It aims to strengthen science and technology orientation to achieving food security by enhancing agricultural productivity in the tropical and mediterranean areas. Agricultural productivity is improved through the use of appropriate technologies and management practices. WIKTROP will consolidate existing scientific and technical knowledge and facilitate sharing of new information on weeds and weed management around tropical and mediterranean areas. Wiktrop will deploy appropriate ICT solutions to build a multi-stakeholder community of researchers, extension services, lecturers, civil society and farmers around a knowledge base of weeds. The action aims at enhancing the capacities of researchers, reinforce the institutional capabilities of the National Agricultural Research System and Universities, empower extension services and improving their quality of service, through a participatory, technology facilitated platform.

- Producing, sharing, spreading knowledge → Facilitating access to knowledge



Species

798



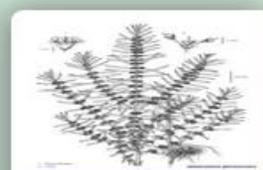
Observation

12296



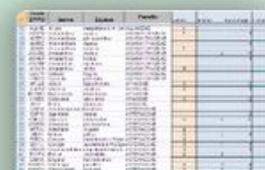
Maps

1



Documents

132



Checklists

4



IDAO Tool

420

### Latest Observations



Show all



# Weed Identification and Knowledge in the Tropical and Mediterranean areas

## WIKTROP

- Species ▾
- Observations 1
- Maps
- Documents ▾
- Contribute ▾**
- Discussions
- Datasets
- Pages ▾
- More ▾

### *Tridax procumbens* L. Accepted name

[Edit](#) [Trash](#)

#### Coat buttons

[Plantae](#) > [Tracheophyta](#) > [Magnoliopsida](#) > [Asterales](#) > [Asteraceae](#) > [Tridax](#) > [Tridax procumbens](#)

[Like](#) [Share](#) [Unfollow](#) [Tweet](#)

**Images** [Add/Edit Media](#)



#### Overview

##### Brief

##### Code

TRQPR

##### Growth form

broadleaf

##### Biological cycle

Annual

##### Habitat

terrestrial

by WIKWIO USER

[0](#)

There is content in another language. Please click here to read it. [FRE](#)

# Conclusion

- **EPPO code is very usefull and necessary in our work**
  - 5 letter code quite simple
  - quite stable even when some species names are evolving
- **BUT still many weed species not yet coded !!**
- **How to facilitate the coding of new species /**
  - About 188 uncoded weed species out of the 1790 we are working on?**