

On-line visibility of the Botanic Institute of Barcelona

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Increasing access to scientific results and knowledge transfer are considered today as important as scientific activity itself, and active policies are necessary for their improvement. Science communication has usually two dimensions: (1) with scientific colleagues through scientific papers or congresses and (2) with non-science community like practitioners, agencies, or general public through specifically-designed outreach tools. This second sort of audience is of paramount importance in publicly funded institutes and research centers, because people should know the results of the research and understand the need to continue financing it.

As a part of this strategy, the visibility of the Botanic Institute of Barcelona (IBB) on the Internet has been significantly increased since the last year. With this aim, a new dynamic website, a YouTube channel and a Facebook page (in order to be present in social networks) were created. Due to the IBB is a small research center, setting up a communication department is not feasible; thus, a working team of staff has been created to manage all these tools. In the developing of all the outreach contents, the staff members of the center, both researchers and technicians, are involved.

THE NEW WEBSITE

In today's Information Age it is very important to be present on the Internet with an updated and dynamic

website that makes available all the information of the institution to a wide number of people at any time. Our new website (<http://www.ibb.bcn-csic.es/>) is simple, well organized and easy to navigate with the goal that people can find what they want quickly (Fig. 1). It is available in Catalan (a co-official language in most of eastern Spain), Spanish and English, and includes a descriptive section (top tabs) and a dynamic section encompassing news and events. This new website has received 5788 visits, and 25,734 pages were consulted since its publication in February 2015¹.

The events and activities in which the center staff is involved are included in the left frame of the homepage, accompanied by a calendar. Conferences, workshops, courses and other botanical outreach activities are published continuously (available only in Catalan and Spanish). The top of this frame also includes a button to access to the available open job positions (as a researcher or technician) as well as possible collaborations. At the bottom of this frame there is a list of interesting links such as the research groups *EtnoBioFic* (Plant Biosystematics and Molecular Phylogeny and Cytogenetics/Ethnobotany in Catalan Countries) and *BioC* (Conservation Biology of Plants) in which some of the IBB researchers participate.

The descriptive section includes a first tab "The Institute", where the user can find a brief description of the center, its history, staff, location, contact data, and access to annual reports. The second tab "Research" includes the two main research lines of the

¹ Data from October 27, 2015.

center: (1) Biodiversity and Plant Evolution, and (2) History of Botany and Analysis of Collections. Each research line has different sections including a short description, main objectives, staff, publications, research projects, and research training. The third tab “Documentation” includes different sections about the library, the archive, the BC Herbarium and the Salvador Cabinet (a natural history collection from the 16th to 19th centuries, one of the oldest in Europe). Each section encompasses a brief description of the funding as well as how to consult or visit it. The fourth tab “Training” is currently under construction and will be available in 2016; once available, it will include all the teaching and training activities carried out by the IBB researchers or technicians. The fifth tab “Publications” comprises all the books, journals, monographs, or databases published by the IBB. In this tab there is also a link to Digital.CSIC (the CSIC’s document repository; see also below), where the user can access to recent or older publications of the IBB staff. Finally, the tab “Exhibitions” includes information about the current exhibition displayed in the IBB as well as a list of previous exhibitions.

IBB OUTREACH NEWS

To achieve a good scientific communication, an institution needs to disseminate its research and activities on the Internet. Many research institutions have a section in their websites to publish outreach notes, or even a scientific blog. In the case of the IBB, a news section has been created on the website homepage (Fig. 1), where scientists and technicians can publish different kind of small texts (see below). These texts are also available in Digital.CSIC, the institutional repository that organizes, preserves, and provides open access to CSIC (Spanish National Research Council) research outputs.

This news section is updated biweekly and includes pieces on mainly three subjects: (1) research, (2) documentation, and (3) activities (available only in Catalan and Spanish). The research news covers the main findings/results of the IBB researchers, but also includes the release of IBB-sponsored scientific publications and the activity of the IBB researchers (such as the publication of a new volume of *Collectanea Botanica*, a thesis defense, or the attendance of a scientific meeting). Regarding the



Figure 1. Homepage of the new website (<http://www.ibb.bcn-csic.es/>) with the top tabs, the left frame with events and activities, the calendar and the list of interesting links and the central frame with the news section.

documentation news, texts are related to the library, the archive, the BC Herbarium, and the Salvador Cabinet. Finally, the last subject includes news about the different activities carried out by the IBB staff or where the IBB staff participate (e.g. a science tour).

Since its creation, up to 29 pieces of news have been published¹. The six texts with more reach are:

- Ambrosio, U. “Alimentary plants and multiculturalism at Fondo district” (*Plantes alimentàries i multiculturalitat al barri del fondo*), March 7th, 2015 (research): description and results of the research project “Food plants and multiculturalism in Fondo district: transcultural processes and urban ethnobotany in Santa Coloma de Gramenet in 21st century”.
- Barros, K. “Digitization tasks begin” (*Inici de tasques de digitalització*), April 16th, 2015 (documentation): presentation of the two projects for digitizing archive collections, funded by the Barcelona Open Challenge.
- López-Pujol, J. “An IBB delegation visits the Institute of Botany of Beijing, China” (*Una delegació de l'IBB visita l'Institut de Botànica de Pequín, Xina*), June 15th, 2015 (research): report of the visit of three IBB researchers at the Institute

of Botany of Beijing to achieve some scientific collaboration between the two institutes.

- Montes-Moreno, N. “Education Fair” (*Saló de l’Ensenyament*), March 27th, 2015 (activities): report of the Education Fair where the IBB has collaborated in the CSIC stand.
- Nualart, N. & Montes-Moreno, N. “Collection campaign AHIM 2015” (*Campanya de recollida AHIM 2015*), July 10th, 2015 (activities): description of the collection fieldtrip organized by the Association of Ibero-Macaronesian Herbaria (AHIM) in Burgos.
- Nualart, N., Montes-Moreno, N., Garnatje, T., Pyke, S. & Ibáñez, N. “BioBlitzBCN 2015, first results” (*Primers resultats del BioBlitzBCN 2015*, May 22th, 2015 (activities): presentation of the first results of this event, in which volunteer scientists and citizens work together to find and identify as many species of organisms as possible within an urban environment.

YOUTUBE CHANNEL

Scientific broadcasting is becoming increasingly popular in recent years and the video platform YouTube allows reaching wide audiences. Accordingly, in May 2014 an own channel on YouTube (<http://www.youtube.com/channel/UCdqw5n8hifq35bcd8xyM8Q>) was created following this objective (Fig. 2).

The first videos of the channel were the lectures given in the IBB within the events organized by several institutions to honor the ecologist Ramon Margalef in the 10th anniversary of his death. Since then, other videos have been added, mainly the records of the scientific seminars held each month at the IBB, as well as other videos about the center activity. In order to organize the contents of the channel, four playlists were created:

- Tribute to Ramon Margalef: this playlist groups together the videos of the three lectures held in the IBB to honor this distinguished Catalan ecologist.
- Research seminars: it includes the videos of the scientific seminars about botany and biodiversity topics held each month at the IBB. Some seminars are not available because they are subject to

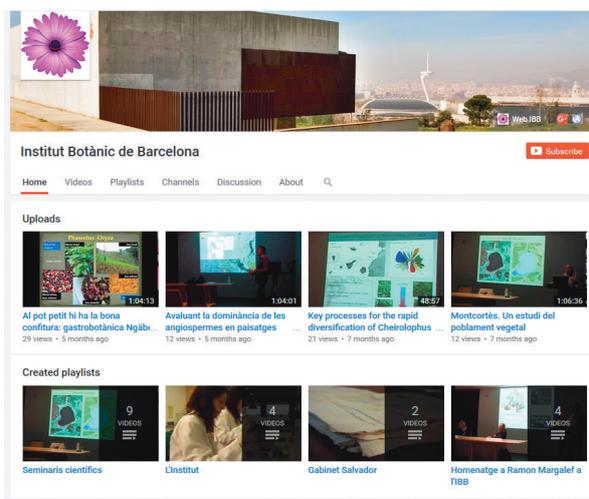


Figure 2. YouTube channel (<http://www.youtube.com/channel/UCdqw5n8hifq35bcd8xyM8Q>) with the videos uploaded and the playlists created.

embargo periods or because the lecturer preferred not to be recorded.

- The Institute: it contains informational videos dealing with the activity held in the IBB.
- Salvador Cabinet: this playlist contains videos about this important naturalistic collection mentioned above and kept by the IBB.

FACEBOOK PAGE

Social media platforms like Facebook or Twitter allows a new form of communication consisting of the interaction between a scientific institution (or its scientists) and their followers. The IBB Facebook page (<http://www.facebook.com/InstitutBotanicBarcelona>) allows on one hand disclosing those events in which the center participates and spreading the news published on the website (Fig. 3). On the other hand, the page also allows publicizing research papers, projects and botanical activities carried out in the center and interacting with other plant research centers. This page was created in April 2014 and at present has already exceeded 400 followers from 10 different countries (being Spain the most representative, although Brazil and Portugal are also important regarding the number of followers).

The number of posts published until now is 403, and 11 of these have reached more than 700 people¹. The four posts with more outreach are:

- *Information on the events of the memorial tribute to Dr. Ramon Margalef in the University of Barcelona website.* April 25th, 2014.
- *Notice of the declaration as a National Heritage of Cultural Interest (BCIN) of the Salvador Collection.* January 30th, 2015.
- *Link to the “El Periódico” news on the Salvadorian Wikipedia Marathon, an event with the goal to improve the articles related to the Salvador lineage.* June 15th, 2015.
- *Information of available open job positions within the program “Youth Guarantee” of the European Commission to work in the laboratory (as a researcher or as a technician), the herbarium, and the library.* September 9th, 2015.



Figure 3. Facebook page (<http://www.facebook.com/InstitutBotanicBarcelona>).