

Camellias: diversity and globalization processes

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Abstract. Globalization processes have been linked to natural and anthropological reasons (cultural and commercial). These processes are reflected in the camellias, understood in the wide sense and as species of the genus *Camellia*. Since the first contacts with the Eastern countries the camellias have travelled first to Europe and then they have spread all over the world, linked to cultural, economic, ornamental or sociologic processes. Examples of these processes are the International Camellia Society, the national societies and their meetings.

Keywords. Invasive plants, ornamental flora, history of science, inculturation, gardening, McLuhan, transculturation, socializing culture

Introduction

Globalization processes are linked to nature, since living beings tend to move pressured by the changing environmental conditions. Human beings have also contributed to globalization with their travels and fusion among different cultures.

Within this framework the camellias are a clear example of globalization, both in the biological sense and as a result of their incorporation to the scientific, cultural and sensory universe of men.

Camellia distribution

The camellias, broadly speaking, as all lineages of Botany inside the Theaceae family, occupy a broad stripe around the globe. The surface of this land depends on the concept of the group. The more restricted family concept, established on the basis of molecular criteria (Stevens, 2008), draws an equatorial stripe, with these plants growing in areas that go beyond the tropics in Southeastern Asia and in the whole American continent. The absolute limits of the family are related to species of the tribe *Gordonieae*, between the parallel 40 ° N, in northern Japan, and the parallel 18 ° S, in the Brazilian coast.

Camellia globalization

Journey to the West. When the trade routes with the East started, different companies in charge of importing goods or new products that could bring great benefits to the European countries were created, also at risk of having substantial losses due to the hazards of these trips. The different Indian companies built a bridge between Asia and Europe to commercialize the valuable spices (cinnamon, cloves were shipped to Europe regularly).

Spain tried to establish a trade route with the East in the reverse direction, across the Atlantic Ocean, with a stop in its lands of Central America. From there, they navigated the Pacific Ocean to reach the Philippines. That connection was possible when they discovered the chance of traveling back and forth between Mexico and the Philippines, taking advantage of the ocean currents in the North Pacific. The new route between the Asian and Mexican coast was known as Manila Galleon, Acapulco Galleon, silk vessel or

Nao de la China route, depending on the port, the most important commodity or the origin of the goods. Back in Mexico, the route continued inland to other ports in the Caribbean Sea towards the main towns and cities.

Undoubtedly, the interest of Spain in these distant lands was twofold. On the one hand, it was commercial in nature, and on the other hand, their presence was linked to evangelization; and was also motivated by scientific and cultural aims. As part of this religious mission, the Spanish and Portuguese missionaries contributed to the fusion of the cultural and religious devotion by means of symbols already established in the West but ineffective in the East. They contributed to turn the camellia into a religious symbol in Japan; C. Hiruki (2005, 2006) discusses how the traditional identification of the Virgin Mary with the rose itself in the Catholicism, was done in the East with an apparently similar native flower, the camellia, under realistic or idealized forms, which was also accepted as a spiritual symbol. On the other hand, the religious orders brought back to Europe new ideas, traditions, art objects, plants or plant drawings, which included tea and probably the ornamental camellia.

The first camellias in Europe. Everyday new and previous alternatives to the traditional dates of arrival of camellias to Europe are emerging. Gil de Seabra (2005) transcribed part of the dowry of Catherine of Braganza, daughter of King Pedro IV of Portugal, for her marriage to King Charles II of England in 1652: “uma arca de chá [tea] ...” (*a box of tea*) when the *Camellia sinensis* beverage was completely unknown in the British Isles and the Netherlands. On the other hand, the *Camellia* symbol probably traveled to Europe, as suggested by Salinero & Mansilla (2008), on the basis of the holy water fonts of stone found in the Church of Santa Maria sopra Minerva in Rome (Italy), a work of Octavio Lazzari, who sculpted them in 1588.

The camellias were also introduced in Europe as reproductions of art objects - also in Mexico - associated to namban art. They were often boxes, lecterns, folding screens, fans, jewelry, Eastern writing desks of this particular art style, having some Western influence, with camellia flowers in their drawings. These objects have been studied for some time (xxx) and the fact that camellias were found in their ornaments has been recently mentioned (Sainz & Izco, 2013; Sainz et al 2014). Dating from the sixteenth and seventeenth centuries, the presence of these objects in private collections, museums and royal Spanish and Portuguese monasteries are proof of the arrival in Europe of camellia representations earlier than the accepted dates. .

It was considered that the first description of camellias known in Europe was done by John Petiver, and the first images also belong to the same author, in his *Gazophylacii Naturae et Artis* (1702) and to Engelbert Kaempfer, in his work: *Amoenitatum exoticarum Politico-physico-medicae, Libri V* (1712). According to Luc Dhaezel (2007) the first camellia descriptions are prior to that date. The first description corresponded to the Dutch botanist Jacob Bontius in his *Naturalis et medicae Nistoriae Indiae orientalis*, Libri VI (1642). As regards camellia representations, the oldest image is associated to the same work of Bontius published by Willem Piso – the Latinized name of Wilhelm Pies – in his *De Indiae utriusque re naturali et media*, in 1658, which includes a drawing of the plant.

On the other hand, George Kamel is another figure in the controversy of the first camellia representations that were introduced in Europe. It has been said that the Jesuit pharmacist has never seen camellias, since he did not leave the Philippines where they are not native, but this reasoning does not have an absolute character. According to recent findings (Dhaezel, 2007; Dhaezel & Herdt, 2008), G. Kamel is the author of a picture

of a camellia, designated as “Tschia”, with distinctive characters such as lanceolate finely toothed leaves, and a rounded fruit with three carpels. This drawing, as well as other writings by the same author, is found in the Maurits Sabbe Library of the Catholic University of Louvain (Belgium). They are thought to date back before 1706, when G. Kamel died, but the route and date of arrival these documents have not been determined yet.

The presence of camellia plants in the gardens of Robert James, 8th Lord Petre, in Thorndon Hall (Essex, England), in 1739, is the first reference of camellias grown in Europe. It is well documented and repeated in dozens of scientific books and articles. It is an anticipation of the widespread presence of camellias in the world.

Richness and diversity of the group

The genus and the species. The genus *Camellia* was described by Linnaeus in his *Systema Naturae*, in 1735. The species were described later. In his *Species Plantarum* (1753), *Thea sinensis* is included in Class XIII (*Monadelphia. Monogynia*), volume 1, page 515; *Camellia japonica* and *Stewartia malacodendron* were described in class XVI (*Monadelphia. Polyandria*), volume 2, page 698.

Since the first camellias and related species were described by C. Linnaeus in the mid eighteenth century, many other botanists have dealt with this group of plants on the basis of new discoveries, which have not finished yet. Reasonably, within the Theaceae family from 8 to 12 genus have been accepted today, although a hundred have been proposed.

A summary of the proposals made in the last fifty years is an example that shows the differences in the size and variety of the *Theaceae* family and its contents. Among the various proposals, the comprehensive molecular analysis of the components of the *Theaceae* (Prince & Parks, 2001; Prince, 2007) has established 3 tribes and 9 genus in total. This classification is followed by the Angiosperm Phylogenetic Group (APG), of a filogenetic character, on the basis of the cladistic analysis of DNA sequences of 3 genes per sample, two of them chloroplastic and one ribosomal. In the latest version of APG, the Theaceae family is part of the asteroids clade, Ericales order (Stevens, 2014).

The internal organization of the genus *Camellia* is no less complicated than that of the *Theaceae* family, with numerous proposals of infrageneric ranks. Other suggestions classify the genus in Sections, such as that of Sealy (1958) or the most recent works of Chang, Ming or Jiyin et al. (2005) (Table 1), in which there are significant differences in the number of sections and their limits.

Table 1. Classifications of the genus *Camellia*. Number of sections and total number of species according to different authors

	Chang	Ming	Jiyin et al. (2005)
<i>Subgenera</i>	4	2	
<i>Sections</i>	22	13	19
<i>Species</i>	c. 280	c. 280	150-290

In addition, it is not possible to determine the exact number of species of the genus *Camellia*, with a total number ranging from 100 to 280. The Plant List includes 1,071 names of species of the family Theaceae, of which 45% are synonyms (www.the-plantlist).

The world map of cultivars. There are thousands and thousands of cultivars, with their names, which are part of the diversity of plants, although they were originated by men. In the genus *Camellia* more than 30,000 cultivars are described, turning this genus into one of the genus with the largest number of cultivars. Only the genus *Rosa* has a similar number. The monumental task of gathering all camellia cultivars in a single catalog has been one of the most complex and difficult challenges of the International Camellia Society (ICS), but it was a success. Savige (1993), the author of the work, gathered information of all these cultivars in two large volumes, with a total of 2,209 pages; this work was followed by a supplement in 1998 with 386 pages of additions and amendments. Today, this information is available on the Internet by the ICS under the direction of Gianmario Motta (ICS. The online register of camellias).

The analysis of the names given to these cultivars showed some diversity among those created in the Eastern and Western worlds, which is a reflection of the cultural diversity. Among the names of the cultivars in the Eastern countries, such as China and Japan, many of them refer to geographic features, place and people names. It is worth to mention the sentimental names, of poetic inspiration used by these distant cultures, which are only appreciated after translation (Savige, 1999) (Table 2).

Table 2. Names of old (<1945) and modern (≥1945) cultivars of *Camelia japonica* and *C. sasanqua*, taken from data of Savige (1999)

<i>C. japonica</i> (<1945)	<i>C. sasanqua</i> (<1945)
"Gosho-nishiki" (Royal Brocade). 1945 "Kaeshitamazusa" (Returned Love Letter). 1630 "Kagura-jishi" (Sacred Lion Dance). 1859 "Ōniji" (Great Rainbow). 1929	"Chiyozurn" (Long Lived Crane) 1898 "Mado-no-tsuki" (Moon at the Window). 1885 "Omigoromo" (Beatiful Kimono). 1898 "Shimdai" (Heights of Purple Cloud). 1898
<i>C. japonica</i> (≥1945)	<i>C. sasanqua</i> (≥1945)
"Ai-no-tomoshihi" (Light of Love). 1997 "Aki-komachi" (Quiet Beauty). 1971 "Asahigawa" (Sunrise on the River). 1960 "Ikume-chō" (Ikume Butterfly). 1982 "Kakusei" (Crane's Call). 1983 "Shizuka" (Quietude). 1975 "Tanikaze" (Wind in the Valley). 1960 "Tennyō" (Celestial Maiden). 1986 "Wedatsumi" (The Sea God). 1967	"Agaromo" (Robe of Feathers). 1980 "Asagasumi" (Morning Mist). 1989 "Fuji-no-yuqui" (Snow on Fuji). 1957 "Misome" (Desiré Possession). 1960 "Ryûkô" (Dragon Light). 1970 "Sahohime" (Goddess of Spring). 1982

On the other hand, in the Western countries cultivar designations refer to locations, landforms, animals, etc., and lack of the poetic and spiritual sense, more common in the East. There are plenty of names dedicated to emperors, kings and queens, as well as to other members of the nobility, which are not so often proposed by the Eastern botanists.

Author's name. The analysis of the names of the authors shows a division between the West and the East. The former belong to the European powers that had colonies and trading ports in the East: Britain, Germany, France, Holland, Sweden, Portugal, Spain, United States and other countries that do not entirely fit into the model.

The dates of the first descriptions coincide with the times when the corresponding cities were characterized by their economic strength and their botanic studies in the colonies until the World War II, in the mid-twentieth century. In this context John Robert

Sealy (1907-2000) is an exception, since he is a link between the Western tradition and the arrival on the scene of Eastern botanists.

There aren't any Eastern authors of new camellia taxa before the last third of the nineteenth century. At the end of this century the Japanese botanists took over the description of new taxa, coinciding with the almost disappearance of the Western botanists. The Japanese contribution fell sharply since World War II, although Siro Kitamura, Tuyama Takasi and Genkei Masamuna were the authors of new proposals from that time until the late twentieth century.

These last Japanese botanists are a transition to Chinese botanists, which were the new authors of the descriptions of the latest camellias, following the steps of the oldest Chinese botanist, Sung Su Chien, dating from the late nineteenth century. The other Chinese authors were born in the first quarter of the twentieth century and most of them are still alive. Unfortunately for many Chinese botanists it has not been possible to find information about their dates of birth and death, but it is assumed that they fit the model and are part of the new generation of authors who continue to describe new camellias. Particularly important are the contributions of Ming Tien Lu and Chang Hung Ta.

Globalization of camellia culture

Tea cultivation. The native area of tea (*Camellia sinensis*) is well-known. It is found in the mountainous regions between China and India, enjoying a tropical or subtropical climate. Tea cultivation was started in this area, and from there it disseminated to the rest of the world. Today the area of cultivation of *C. sinensis* covers more than 2.5 million hectares in five continents, and a production over 4.1 million tons in 2010 (FAO). Nowadays tea is also grown in some countries in the East and West of Africa, and in both American sub-continents, from Mexico to Argentina, where it is cultivated in the regions located further from the equator, at latitude 28 ° South.

Apart from the interest of the leaves of this plant, producing an infusion consumed worldwide, it is also cultivated in botanical and public gardens that incorporated this species to their collections, for educational or ornamental aims.

Ornamental camelias. The cultivation of camellias and other alike plants for ornamental purposes has been done as far as the natural conditions have made it possible; sometimes even further, since they were also grown in greenhouses. In the European gardens several *Theaceae* species are cultivated: *Camellia* (15), *Franklinia* (1), *Gordonia* (4), *Schima* (1) and *Stewartia* (9), together with other genus do not subordinated to the family in a strict sense (Whitefoord, 1995; Sponberg, 1995) (Table 3).

Table 3. Genus and species of the *Theaceae* family (*s.s.*) cultivated in Europe (Whitefoord, 1995; Sponberg, 1995)

Camellia: *C. caudata*, *C. crampueliana*, *C. cuspidata*, *C. fraterna*, *C. granthamiana*, *C. hongkongensis*, *C. japonica*, *C. kissii*, *C. oleifera*, *C. rosiiiflora*, *C. salicifolia*, *C. saluenensis*, *C. sasanqua*, *C. tallensis*, *C. tsai*.

Franklinia *alatomaha*

Gordonia: *G. axillaris*, *G. chrysandra*, *G. lasianthus*, *G. sinensis*

Schima *wallichii*

Stewartia: *S. malocodendron*, *S. monadelphia*, *S. ovata*, *S. pseudocamellia*, *S. pteropetiolata*, *S. rostrata*, *S. serrate*, *S. sinensis*, *S. x henryae*.

The European figures are low if they are compared to the data of the number of *Theaceae* species cultivated in Spain, published shortly after. The excellent project Spanish Ornamental Flora lists a large number of cultivated species of the *Theaceae* family: *Camellia* (30), *Stewartia* (7), *Franklinia alatamaha*, *Gordonia axilaris*, *Schima wallichii*, and other species that were part of the family according to the classifications (Table 4) (Argimón de Vilardaga, 2000)

Table 4. Genus and species of the *Theacea* family cultivated in Spain (Argimón de Vilardaga, 2000)

Camellia: *C. brevistila*, *C. caudata*, *C. chrysantha*, *C. crappnelliana*, *C. cuspidata*, *C. fraterna*, *C. granthamiana*, *C. grijsii*, *C. honkongensis*, *C. irrawadensis*, *C. japónica*, *C. kissii*, *C. lutchuensis*; *C. luteoflora*, *C. maliflora*, *C. miyagii*, *C. oleifera*, *C. pitardii*, *C. reticulata*, *C. rosiflora*, *C. saluenensis*, *C. sasanqua*, *C. sinensis*, *C. taliensis*, *C. transgarisenensis*, *C. transnokoensis*, *C. tsai*, *C. uraku*, *C. vernalis*, *C. williansii*.

Franklinia: *F. alatamaha*

Gordonia: *G. axilaris*.

Schima: *S. wallichii*

Stewartia: *S. malacodendron*, *S. monadelfa*, *S. ovata*, *S. pseudocamellia*, *S. rostrata*, *S. serrata*, *S. sinensis*.

Tutcheria: *T. spectabilis*

The information available in the Global Biological Information Facility bank (GBIF), including 3,728 geo-referenced registers, provides a map of the *Camellia* registers in the World, both living plants or herbarium specimens, and sometimes growing in conditions not adequate for their proper development in nature.

***Camellia*: a potential invasive plant?**

Different species of *Camellia* have naturalized outside their native lands, especially in the areas where their cultivation is more common (NARO, 2007 Ciccuza & Kokotos, 2007, Wittenberg & Cock, 2001). Thus, *Camellia japonica* is grown in the wild in Europe and in the Southeastern states of U.S. (Florida, Georgia, North Carolina, South Carolina, Alabama) (USDA, 2014). Due to its extensive cultivation in many areas of the world, *C. sinensis* covers a larger area as a naturalized species, being grown in Europe, in the already mentioned states in Southwestern U.S., in continental Africa (Tanzania, Uganda, Algeria), in the African islands of the Indian Ocean (Mauritius, Reunion), Australia, New Zealand and the Pacific Islands (Hawaii), in the Indian state of Himachal Pradesh, in Argentina, etc. To these two species, but in a lower number and smaller area, *Camellia sasanqua* (Australia, U.S. SO) and *C. reticulata* (Australia) have also naturalized in foreign lands.

Camellia japonica is a naturalized species in Galicia, although it is not listed in the catalog of Romero (2007), or in the Fagúndez monography (2007). The study by Rodríguez-Dacal & Izco (1993) on the germination of tree species grown in the Galician pazos describes the frequent spontaneous development of numerous species including *Camellia japonica*, always within the garden limits, without being present in natural or semi-natural environments.

The global village of macluhan

In his sociological concept, the idea of globalization has become a cliché. Globalization or mundialization is determined by the recent developments of humanity, given

the new possibilities arising from information technologies and telecommunications and to the fluid transportation of materials, people and capital. In some cases the integration or cultural diffusion processes are also included in globalization. This concept was born in the mid-twentieth century; in 1967 the Canadian sociologist Marshall McLuhan coined the phrase “global village” to signify the idea of physical, emotional or economic proximity, on the basis of the close relations among the inhabitants of a small town, which had their lives interconnected and with information flowing quickly.

The International Camellia Society. The ICS itself is an example of globalization and its members are part of this new global village, with representatives in five continents, from all around the world, from New Zealand to its European antipodes (Portugal and Spain), from the United States to Great Britain, China and Japan, drawing a circle around the globe.

A similar thing happens with the about thirty Gardens of Excellence of the ICS. These spaces stand out for the width, diversity and management of camellia collections. These gardens are highly appreciated worldwide, and we find 9 in Asia, 12 in Europe, one in America, one in Africa and 5 in Australasia.

International Camellia Congress (Pontevedra (Spain)). This Congress is another great example of how culture is part of globalization; you come from very different places on Earth and have been invited to an activity that has as an element, one which is in many cases outside their own native environment, an element, the camellia, of a deep cultural character, although not only cultural. Not having closed the registration period of the congress, there are over 200 specialists who have confirmed their attendance.

Of a total of 15 participating countries, stand out, for the number of participants provided to the event, Australia, United Kingdom and the United States of America with 20 participants each. We should also mention distant countries such as Panama, with a lower number of participants, with only two representatives.

Conclusion

Centuries ago camellias travelled from the East to the West and settled down in the regions that are participating in the 2014 International Camellia Congress (Pontevedra, Spain). Today, the camellia is dressed in new clothes, speaks new languages, awakening feelings in new minds, and decorating new gardens; the camellia is the symbol of foreign lands, far from home, and worldwide appreciated for its beauty and its spiritual significance.

So as to value the presence and consideration of the camellia in Galicia, it is enough to quote the words of the great writer Álvaro Cunqueiro (1981), which designates this plant as the “Virxe pelerine das froles” (*pilgrim Virgin of flowers*) for its long journey from the East to the West, and considered it “a máis fermosa visitante que teñamos recibido endemáis no noso país...” (*the most beautiful visitor that we have ever welcomed in our country*). The same Cunqueiro highlights the identity of the “Rose from the East” in Galicia and in what way the people feel it as its own to the extent that: “Tanto é dos nosos hortos e xardíns como dos do emperador do Xapón” (*it belongs to our orchards and gardens in the same way to these of the emperor of Japan*).

References

Agrimón de Vilardaga, X. (2000) *Theaceae*. En J.H.M. Sánchez de Lorenzo (ed.) *Flora ornamental española, II. Cactaceae-Cucurbitaceae*: 327-340. Junta de Andalucía, Ediciones Mundi-Prensa, As. Española de Parques y Jardines Públicos.

- Ciccuza, D. & Kokotos, S. (2007). The invasive potential of tea: naturalization and spread of *Camellia sinensis* in natural and logged forests of the Amani Nature Reserve. <http://www.tropical-Biology.org/admin/documents/pdffiles/Tanz_abstracts/1_Daniele%20&%20Stef_Final.pdf> (Consulta 04/01/2014).
- Cunqueiro, A. (1981) Laude da camellia. Diputación Provincial Pontevedra.
- Dhaezel, L. (2007) Georg Kamel S.J. and the "camellia". Upon seeing a manuscript. www.jesuitica.be/info/ (consultado 12 de enero, 2014).
- Dhaezel, L. De Herdt, R. (2008) De Camellia. Een 'aristocratische roos'. Ed. The Museum of Industrial Archeology and Textiles. Gant. Belgique.
- Fagúndez, J. (2007) *Plantas invasoras de Galicia. Biología, distribución e métodos de control*. Xunta de Galicia. Santiago de Compostela. 208 pp.
- Gil de Seabra, C. (2005) Breve História da Camélia em Portugal. *Camelia*, 6: 9-11.
- Hiruki, C. (2005) *Camellias* in the Roman Catholic Churches in Japan. *International Camellia Society*, 145: 102-108.
- Hiruki, C. (2006) Las camelias como símbolo religioso en Japón, *Camelia*, 9: 24-28.
- Jiyin, G.; Parks, C.R. & Yuequiang, Y. (2005) *Collected species of the Genus Camellia. An Illustrated Outline*. [Zhejiang Science and Technology Publishing House](http://www.zhejiang-science.com/). China. 302 pp.
- Linneo, C. (1753) *Species Plantarum*. 1, 2. A facsimile of the first edition. Ray Society. 1 (1957), 2 (1959). London.
- NARO. 2007. *The National Invasive Species Strategy, Action Plan and Policy Guidelines for Uganda*. Report submitted to CAB Africa under the UNEP/GEF Project: *Removing Barriers to Invasive Plant Management in Africa*. National Agricultural Research Organization, Entebbe, Uganda.
- Prince, L.M. (2007) A brief nomenclatural review of genera and tribes in *Theaceae*. *Aliso*, 24: 105-121. ([www.researchgate.net/...brief_review...nomenclature...](http://www.researchgate.net/publication/23092320)) (Consultado 10 de enero, 2014).
- Prince, L.M. & Parks, C.R. (2001) Phylogenetic relationships of *Theaceae* inferred from chloroplast DNA sequence data. *Amer. J. Bot.* 88: 2309–2320.
- Rodríguez-Dacal, C. & Izco, J. (1993) *Datos sobre la germinación espontánea de las especies arbóreas alóctonas (exóticas) en los pazos gallegos*. Congreso Forestal Español. Ponencias y Comunicaciones, IV: 63-68.
- Romero, M^a.I. (2007) Flora exótica de Galicia (noroeste ibérico) *Botanica Complutensis*, 31: 113-125.
- Sáinz, M.J. & Izco, J. (2013) Las camelias en el arte namban de España (siglos XVI y XVII). *Camelia*, 22: 12-17.
- Sáinz, M.J.; Izco, J. & Salinero, C. (2014) Camellias in Namban objects from the 16th and 17th centuries in Spain. Este mismo volumen
- Salinero, C. & Mansilla, P. (2008) Las pilas de agua bendita de Octaviano Lazzeri (1588). *Camelia*, 13: 11-12.
- Savige, T.J. (1993) The International Camellia Register. Ed. The International Camellia Society. Wirlinga. New South Wales. Australia.
- Savige, T.J. (1998) The International Camellia Register. Supplement. Ed. The International Camellia Society. Wirlinga. New South Wales. Australia.
- Savige, T.J. (1999) *The nomenclature of Japanese camellias and sasanquas*. Traduction from the Japan Camellia Society. 248 pp.
- Sealy, R.J. (1958) A revision of the genus *Camellia*. The Royal Horticultural Society. London. United Kingdom.
- Sponberg, S.A. *Stewartia*. In J. Cullen et al. (ed.) (1995) *European Garden Flora*. IV. Cambridge Univ. Press.
- Stevens, P.F. 2008. [Angiosperm Phylogeny Website](http://www.mobot.org/MOBOT/research/APweb/). Version 9 onwards. (<http://www.mobot.org/MOBOT/research/APweb/>).
- Stevens, P.F. (2014). [Angiosperm Phylogeny Website](http://www.mobot.org/MOBOT/research/APweb/). Version 13, January 2014. (<http://www.mobot.org/MOBOT/research/APweb/>) (Consultado el 20 de enero, 2014).
- The Plant List. www.theplantlist.org/browse/A/Theaceae/. (Consultado el 30 de enero, 2014).
- USDA (2014) *Introduce, invasive and noxious plants*. United States Department of Agriculture. Natural Reserves Conservation Service. www.plant.usda.gov/ (Consultado 08/01/2014).
- Whitefoord, C. (1995) *Camellia, Franklinia, Gordononia, Schima*, In J. Cullen et al. & ed.) *European Garden Flora*. IV. Cambridge Univ. Press.
- Wittenberg, R., Cock, M.J.W. (eds.) 2001. *Invasive Alien Species: A Toolkit of Best Prevention and Management Practices*. CAB International, Wallingford, Oxon, UK, xvii, 1-228.