Artificae Plantae: The taxonomy, ecology, and ethnobotany of the Simulacraceae

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"Research"

Abstract

The Simulacraceae has long been ignored by traditional botanists despite the fact that this family of artificial plants represents one of the most economically important and geographically diverse groups. In this study, conducted over approximately six years, we elucidate the first full description and review of this fascinating taxon. The economics, distribution, ecology, taxonomy, paleoethnobotany, and phakochemistry of this widespread family are herein presented. We have recently made great strides in circumscribing this group, and collections indicate this cosmopolitan family has a varied ecology. This report delineates approximately 80 species in seventeen genera (*Calciumcarbonatia*, *Celadonica*, *Conglomeratium*, *Dentumadhesivium*, *Ductusadhesivia*, *Granitus*, *Simulacra*, *Lignus*, *Metallicus*, *Papyroidia*, *Paraffinius*, *Photophyta*, *Plasticus*, *Polystyrin*, *Prophylactica*, *Silicus*, and *Textileria*) and two tribes (*Xenoideae* and *Simuleae*). Continued work is expanding these numbers rapidly. Despite being genomically challenged plants, an initial phylogeny is proposed. In an early attempt to determine the ecological relations of this family, a twenty-meter transect has been inventoried from a *Plasticus* rain forest in Nyack, New York, yielding 49 new species and the first species-area curve for this family.

Introduction

A previously unacknowledged family of significant economic importance plants has been flourishing around us for many years. The fact that this immense family has been heretofore ignored by most botanists is astonishing given that its members are found worldwide and in almost every society. As a completely new plant family has not been described for many years, it may come as a surprise to many in the plant sciences that there remains such a large and diverse undescribed taxon. The methodology for delineating such a speciose new family is without modern precedent. In addition, this family is more than a botanical curiosity. It is a genuine scientific conundrum, as the taxa lack genetic material, appear virtually immortal, and have the ability to form intergeneric crosses with ease, despite any evident mechanism for cross-fertilization. We will attempt to clarify some of these puzzles. There is no previously published taxonomic research for this family, so, luckily, we did not have to coerce any unpaid students to do any literature searches for us.

Methods

Our principal method for the study of Simulacraceae has been opportunistic sampling. We first became acutely interested in the Simulacraceae during the 2000 Society for Economic Botany (SEB) annual meeting, when we began pondering the identities of ornamental arrangements. At the 2001 SEB meeting in Honolulu, Hawai`i, our interest was piqued by the species diversity evidenced in the cul-

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turally important lei. Over the subsequent years we have found ourselves collecting Simulacraceae whenever we stumble upon them, and have been aided in our efforts by family, friends, and colleagues.

The collection of Simulacraceae can be rather difficult. Although no country of which we are aware requires permitting, collecting is often hampered by individual property rights. Speed with clippers is essential (though not without some very minor ethical concerns). We also have purchased collections when necessary, which adds a layer of obscurity to location of origin. In addition, some samples are so unusual, large, or durable (e.g. *Metallicus*), that we have been resigned at times to photographic collections. We have established the world's first simularium in the hall closet of the Foundation for Artificial Knowledge and Ethnobotany (FAKE) in New York, NY, where our specimens and types are deposited.

In an effort to get some real numbers on the biodiversity of the Simulacraceae, over many months we prepared for an extensive field session (1 day) in the Simulacraceae-diverse Rain Forest Café in the Palisades Center, Nyack, New York (41.098° N, 73.956° W) in January of 2002. This mall is center of commerce and trade for not just the local indigenous population, but also for mestizo fashionistas who occupy the surrounding regional lower Hudson river estuary floodplain and travel great distances for the wide selection and great bargains on imported goods to be found here. They may stop for nourishment in the Rain Forest Café, and while not directly subsisting on the surrounding Simulacraceae fruits and foliage, these plants clearly serve a soothing psychological purpose. Despite the long planning for such a long and arduous field trip, the Rain Forest Café was closed on the day we finally arrived at its front door, due to fickle nature of local trade practice and holidays. Not dissuaded, we performed a productive transect of the exterior of the café, which had a 20 m wall laden with Simulacraceae, mostly of the *Plasticus* genus (Figure 1). This transect was broken down into four plots (of 5 x 1m), and the species present in each plot were recorded, when they were identifiable. Having no Simulacraceae experts besides ourselves to whom to send our samples, we had to depend on our own wit, whimsy, and expertise to identify the vast plastic flora of the Rain Forest Café (Figure 2). The fieldwork marks an important turning point in our experience with the family, as it was the first known ecological, floristic, or field study of the family. The species-area curve of this transect is represented in figure 3. It is clear from the asymptotic curve based on a numeric progressive exponential regression that our sampling was sufficient at this site, as it is doubtful that additional effort would have been rewarded even if we had attempted illegal entry into the café proper to observe the species there. The species list from this site is found in Appendix 1. We tagged and mapped individuals of a particularly dominant species, *Plasticus magnolius* BRR, for modeling of population dynamics.

Figure 1. Performing a species inventory in the *Plasticus* Simulacraceae hotspot of the Rainforest Café, Palisades Center, Nyack, New York.

Figure 2. Meticulous identification of a difficult *Plasticus* species in the simularium was performed during the inventory of the Rainforest café.

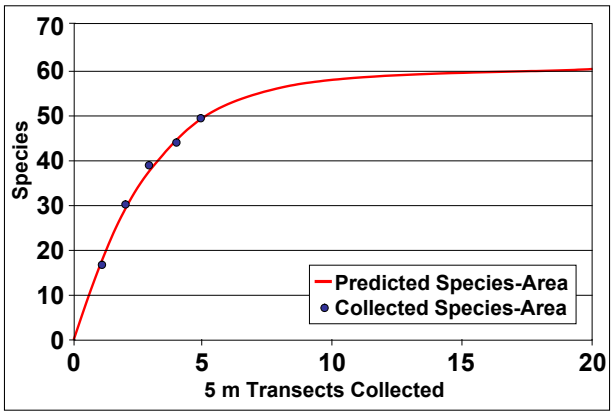

Figure 3. Species-area curve for Rainforest Café transect of the Simulacraceae in Palisades Center, Nyack, New York.

Results

Distribution

The Simulacraceae are suspected to be cosmopolitan, and have been collected so far in the United States, Mexico, Panama, Peru, Brazil, Scotland, Portugal, Spain, Morocco, Mali, Nepal, Laos, Malaysia, China, and Thailand (see Figure 4). They have been found in all manner of ecotypes: house plants, fish tanks, home gardens, costumes, cemeteries, concrete gardens, parades, restaurants, museums, dentists' offices, supermarkets, igloos, hotel rooms, zoos, hats, and building lobbies. There seems to be no limit to the habitats in which the Simulacraceae can grow, except perhaps, in the wild, although the expansion of the range can be directly correlated to human impact. We have reports of sightings of the Simulacraceae from a much wider distribution, but these are as-yet unsubstantiated.

Ecology

Given the apparent cosmopolitan nature of this family, the ecology of the Simulacraceae is rather difficult to circumscribe. Genetic diversity is limited, and is discussed further in the phylogeny and phakochemistry sections below. It is rare to find a sole individual of Simulacraceae; instead, small populations or diverse microcommunities are the norm (Figure 1). Ecosystems themselves are restricted to areas perhaps best described as hotspots. Endemism was once very common for this family, but is now much harder to document, as cheap labor and global markets have quickly eradicated many obvious signs of endemism. A plant's origin is becoming increasingly harder to ascertain, and it can no longer be assumed that a lone species is necessarily endemic to the collection locale. It is suspected that many "endemics" are actually engineered in remote Chinese factories, but we have not had the time or funding necessary to study the phenology, pollination, or dispersal biology of the family.

Populations and communities of Simulacraceae appear allelopathic: where Simulacraceae are found Euphyta are at a distance. This apparent allelopathy is extraordinarily unusual for its inclusion not just of congeneric species, but those throughout the Euphyta. These results only increased our interest in the study of secondary compounds in the family. However, we have found very restricted cases of apparent symbioses and mutualism of Simulacraceae and Euphyta: the species *Plasticus laurus* was discovered intertwined with a *Quercus* species and *Plasticus gypsophyllum* was located among numerous Euphyta.

Simulacraceae are found within all of Koppen's climate classifications (McKnight 1984) and are thus present in an enormous range of ecosystems. However, individuals within the family exhibit a clustered distribution. In fact, those areas with very high species richness of Simulacraceae are restricted to relatively small microenvironments.

Figure 4. Simulacraceae collection localities are represented by stars, indicating a cosmopolitan distribution.

To the best of our knowledge, these hotspots are best represented by Rainforest Cafés, museums, hotels/motels, dentists' waiting rooms and craft stores. The data from one such hotspot, the Rainforest Café at the Palisades Center, Nyack, New York, (Figure 3) indicated a zeta diversity beyond even that of the most undisturbed Amazonian rain forest, and was composed of an intriguing mix of temperate and tropical flora. Comparisons to similar Simulacraceous cafés in other parts of the world would be most enlightening.

The intriguing dominance of a single species in this Nyack hotspot encouraged us to conduct matrix muddling of one particularly dominant species, *Plasticus magnolius*. In 2002, we censused 178 individuals, mapped and tagged all individuals, measured size from the anchoring substrate to leaf apex, counted leaves, and marked leaves and flowers with paint to track productivity. We had intended to use a Lefkovitch matrix (Pielou 1977), yet in our initial census were surprised to find individuals restricted to the reproductive stage class. No seeds, juveniles, or pre-reproductive individuals were found. In fact, all reproductive individuals were identical morphologically. By the time we carried out our 2004 census we already had several years of extensive Simulacraceae research under our belts and therefore it was not perplexing to find the data exactly the same as our 2002 results. In the two years between censuses no individuals grew—not leaves, flowers, or fruit. In fact, stage residence was 100%. The same leaves and flowers that we marked in 2002 remained and repeat photography of the flowers revealed the same stage of blossoming in 2004. In addition, there remained only one stage, with an absence of seeds, juveniles, pre-reproductive, or even senescent individuals. As there was no growth, recruitment, and mortality, stage transition was 0%. Our data appear to meet the assumptions of matrix muddling as individuals in each stage (as we suspect they must exist somewhere) are subject to the same mortality, fecundity, and growth rates (that is, 0). As a result, the population growth rate was 0. It might seem odd to attempt to display these data in matrix format, given the existence of a sole stage; however, we felt it would be informative to illustrate our results as a network (Table 1, Figure 5).

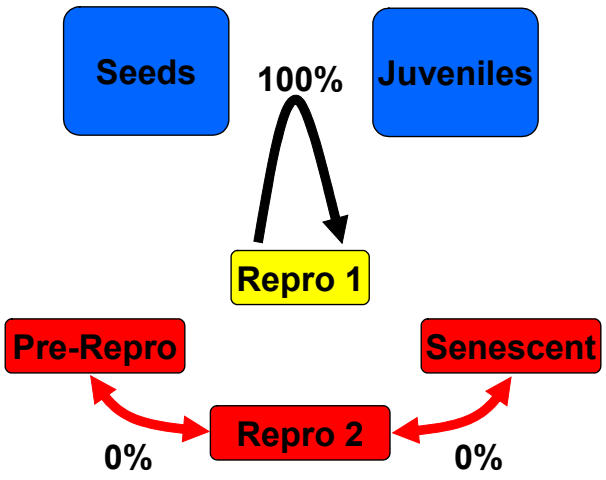

Figure 5. Matrix muddling for Platicus magnolius in Simulacraceae rainforest revealed nothing in table format, but showed some interesting patterns when graphed.

These data, in combination with natural history observations and collections from around the world, emphasized the apparent longevity (indeed, possibly even immortality) of the Simulacraceae, as well as the overwhelming preponderance of individuals in reproductive, typically flowering, life stage. In fact, in future work we intend to follow-up on these results by exploring the differential lifespans of the various Simulacraceae genera via research in garbage pits and archaeological sites. Our initial research on Simulacraceae life cycles and simulacrarcheobotany indicates that some *Granitus* and *Metallicus* species may have seized the record for the longest "living" single organism on Earth, far surpassing the Sequoias of North America. However, radiocarbon dating techniques have been stymied by the lack of success at finding any carbon in these specimens.

Description and Phylogeny

Seventeen genera and 86 species have been identified so far in the Simulacraceae *sensu strictu*: *Calciumcarbonatia* (5), *Celadonica* (3), *Conglomeratium* (3), *Dentumad-*

Table 1. The table used for matrix muddling of the Plasticus magnolius individuals at the Nyack, New York field site.

Seeds	Juveniles	Pre-Reproductive	Reproductive 1	Reproductive 2	Senescent
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	1.0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

hesivium (1), *Ductusadhesivia* (3), *Granitus* (2), *Simulacra* (1), *Lignus* (6), *Metallicus* (4), *Papyroidia* (1), *Paraffinius* (1), *Photophyta* (2), *Plasticus* (51), *Polystyrin* (4), *Prophylactica* (1), *Silicus* (5), and *Textileria* (3). The delineation of the genera in Simulacraceae is quite difficult given the penchant of intergeneric hybrids to form spontaneously, leading to genera such as *Plasticus* x *Textileria*. There is also disagreement within the Simulacraceae specialists as to whether to include in Simulacraceae *sensu strictu* or even *sensu latté* marginal or ancestral genera such as the *Lignus* (fake plants derived from material from members of the Euphyta, the true plants). As the *Lignus* (Figure 6) appear to have genetic material, we have decided to include them merely as a transitional sister group to the Simulacraceae.

The formal Latin description of the family and genera are as follows:

- Simulacraceae – *away andbray ewnay antplay amilyfay omposedcay ofway objectsway ademay ybay umanshay otay ooklay ikelay anyway eciesspay inway ethay ingdomkay Antaeplay orway ancifulfay eciesspay avinghay omponentscay ofway away ivinglay antplay eciesspay orway away ombinationcay ofway omponentscay omfray everalsay ivinglay antplay eciesspay utbay otnay ookinglay exactlyway ikelay anway extantway antplay*. (Type: *Simulacra hibiscia* BRR, Figure 18)

- *Calciumcarbonatia- onceway ethay openingway andway osingclay owersflay ofway ethay easay oorflay, ethay alciumcay arbonatecay ellsshay ofway ustaceanscray areway alsoway usedway otay akemay imulacrasay ofway ethay oweringflay antsplay ofway ethay andlay*. (Type: *Calciumcarbonatia diversa* BRR, Figure 13)

- *Celadonica- omposedcay ofway ayclay, eramiccay, andway/orway azeglay, utbay otnay ouryay andmother'sgray inachay etsay*. (Type: *Celadonica bambusa* BRR, Figure 21)

Figure 6. Members of the Simulacraceae genus *Lignus*, or Euphyta (true plants).

- *Conglomeratium- ademay ofway aterialmay atthay isway anway artificialway ixturemay orway onglomerationcay ofway ocksray andway ineralsmay uchsay asway oncretecay*. (Type: *Conglomeratium arachis* BRR, Figure 22)

- *Dentumadhesivium- away ubstancesay usedway otay oldhay alsefay eethtay inway aceplay isway oldedmay intoway omesay eautifulbay ulpturesscay ofway elegantway andway elicateday owersflay, away onglay ayway omfray itsway owlylay originsway, utbay illstay usedway inway ursuitpay ofway alsityfay*. (Type: *Dentumadhesivium epilobium* BRR, illustrated at cam.arts.usf.edu/GS/artists/edmier_keith/edmier.html)

- *Ductusadhesivia- Uctday apetay isway ikelay ethay Orcefay: itway ashay away arkday idesay, itway ashay away ightlay idesay , andway itway oldhay ethay universeway ogethertay, andway ometimessay itway isway evenway usedway otay akemay alsefay owersflay andway eaveslay, asway inway isthay enusgay*. (Type: *Ductusadhesivia lilia* BRR (illustrated at www.octanecreative.com/ducttape/fashion/wedding/photos.html)

- *Granitus- arvedcay omfray aturallynay occuringway ocksray andway ineralsmay*. (Type: *Granitus cacao* BRR, Figure 14)

- *Lignus- ademay upway ofway antplay attermay uchsay asway oodway, utbay arrangedway osay asway otnay otay ooklay ikelay ethay originalway eciesspay omfray ichwhay ethay oodway asway akentay*. (Type: *Lignus* sp. BRR, Figure 6)

- *Metallicus- oneway ofway ethay ostmay urableday ofway ethay alsefay antsplay, omposedcay ofway anyway alloyway ofway ethay etalmay elementsway uchsay asway ironway, eelstay, aluminumway, oppercay, oldgay, ilversay, andway ometimessay evenway olybdenummay, elievebay itway orway otnay*. (Type: *Metallicus nelumbo* BRR, Figure 12)

- *Papyroidia- alongway ithway Granitus andway Lignus, oneway ofway ethay oupgray ofway earlyway evolvedway akefay antsplay, ademay omfray ethay ashedmay ieddray ibersfay ofway ethay Eraceaevay Apyruspay sppay. andway oodway ulppay ownknay asway aperpay*. (Type: *Papyroidia phaleonopsis* BRR, Figure 16)

- *Paraffinius- omposedcay ofway artspay ademay ofway egetablevay , animalway, orway ineralmay-asedbay axesway andway araffinspay*. (Type: *Paraffinius hibiscus* BRR, Figure 19)

- *Photophyta- ademay atway eastlay artiallypay ofway objectsway atthay emitway ightlay uchsay asway ightlay emittingway iodesday, uorescentflay orway incandescentway ightslay*. (Type: *Photophyta clematis* BRR, Figure 20)

- *Plasticus- owersflay andway eaveslay ademay ofway olidsay olymerspay uchsay asway olyvinylpay oridechlay, acrylicway, olyethylenepay, orway olystyrenepay*. (Type: *Plasticus cannabis* BRR, Figure 9)

- *Polystyrin- omposedcay ofway yrofoamstay orway otherway olymerspay enclosingway anymay inutemay airway ocketspay*. (Type: *Polystyrin dendrobium* BRR, Figure 23)

- *Prophlylatica- ethay ower'sflay orollacay orway alyxcay ademay omfray exualsay ophylacticspray (ondomscay) ofway atexlay, acrylicway, orway otherway aterialsmay*. (Type: *Prophylactica saintpaulia* BRR, Figure 17)

- *Silicus- oftenway eceptivelyday ifelay-ikelay utbay actuallyway omposedcay ofway iliconsay ioxideday (andsay) eltedmay atway ighhay emperaturestay intoway ethay ighlyhay iscousvay iquidlay ownknay asway assglay*. (Type: *Silicus nymphaeus* BRR, Figure 15)

- *Simulacra- ademay ofway atflay eetsshay ofway ubberray, ylarmay , orway otherway extilestay entrappingway oomray-emperaturetay airway, othay airway, eliumhay, ydrogenhay, orway otherway asesgay. Oftenway omposedcay olelysay ofway owersflay*. (Type: *Simulacra hibiscia* BRR, Figure 18)

- *Textileria- eaveslay andway owersflay ademay ofway extiletay eetsshay ovenway omfray ilksay, ottoncay, olyesterpay, ylonnay, utejay, inenlay, emphay, orway otherway aturalnay orway artificialway ibersfay*. (Type: *Textileria rosa* BRR, Figure 10)

The elucidation of the phylogeny of the Simulacraceae using molecular techniques has been quite vexing. Initial RABiD, matchBOX, nabisco and chloroplast genome sequencing turned up absolutely zero genetic material and led to bush phylogenies (Figure 7) no matter how many times we ran the data through PAUP, WinClada, MacClade and phudgeData, despite tweaking the iteration and bootstrapping parameters until all hours of the night. This led us to question our basic assumptions. Were the Simulacraceae a different form of life from all the carbon based plants that reproduce using DNA that we all know so well? How were these plants reproducing themselves, something they were evidently doing quite well all around the world? This does not bode well for the Simulacraceae Genome Project, a multi-center, $10 million project funded by the National Science Foundation's Study Center on Artificial Materials (SCAM), which is slated to be completed in 2009.

What of the fossil record? A complete search of the literature turned up no records of morphological genera fossils that we could equate to our extant Simulacraceae genera, but we believe this is solely due to the misguided attempts of the Simulacraceae paleobotanists to search in pre-historic fossil strata such as the Cambrian and Devonian. Our quick and dirty phakochemically dated Simulacraceae phylogeny indicates that the family probably did not diverge from its sister group, the Euphyta, until well into the late Classical period. Therefore, we entreat all paleobotanists to turn their studies towards this family, as there is no end of excellent graduate student theses.

Attempts to find transitional groups or living fossils of the Simulacraceae have been somewhat successful, although there is disagreement among our group of how to delineate the Simulacraceae *sensu strictu*. For example, the *Lignus* appear on the surface to be Simulacraceae, but on phakochemical analysis we determined they are clearly derived from Euphyta components (see Figure 6). Should samples such as these be included in the family or used as an outgroup? On the other hand, we have contemplated the possibility of the *Cyborgiae* (Figure 8) as either an advanced transitional group or very complex

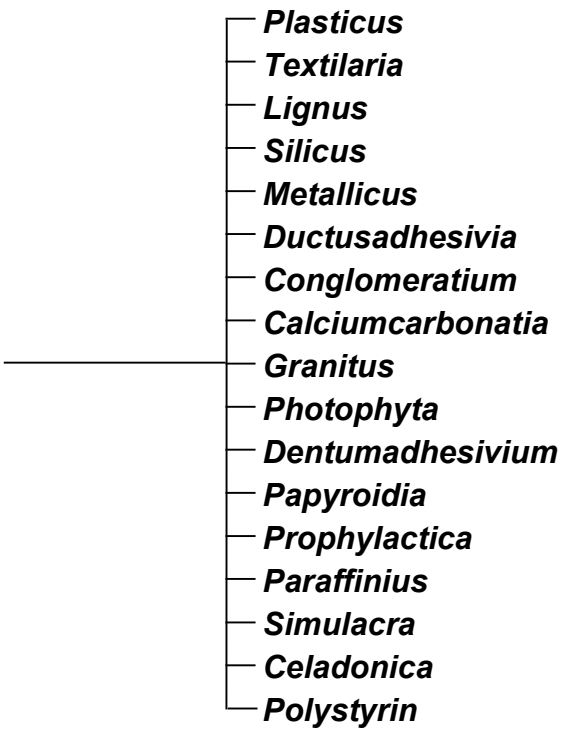

Figure 7. Consensus bush phylogeny produced by running the Simulacraceae generas' genetic data (or lack thereof) through phudgeData, with a shoelace value of 3.1415.

Figure 8. A member of the tribe *Cyborgiae*, a probable outgroup of the Simulacraceae.

symbiotically intertwined organisms. We have considered a third interpretation of the *Cyborgiae* as a form of ceremonial use of the Euphyta as Simulacraceae worship or emulation. Regardless of the interpretation, these have components well within the Simulacraceae family bounds based on their phakochemistry and synapomorphies.
With nothing more than the morphology of these seemingly quite different plants to go on, and not wanting to seem antediluvian, we were forced to turn instead to chemosystematics to produce a publishable phylogeny with a full phakochemical analysis of the makeup of the different genera of the Simulacraceae.

Phakochemistry

Comprehensive chemical analysis proved to be a very effective tool for delineating taxa in this diverse family, and we have thus made extensive use of modern chemical techniques to develop a taxonomy of the group. Extracts were prepared and subjected to various modern spectroscopic means of analysis. Extensive use of mass spectra, NMR, touch, feel, and smell were used to create complex metabaloney matrices further analyzed using principal component analysis. These methods helped create very easily defined groups of chemically distinct taxa.

Indeed, the naming of the taxa tended to follow from the physical constituents. Species of the *Plasticus* (Figure 9),

Figure 9. *Plasticus cannabis* (holotype), the only evidence of potentially psychoactive Simulcraceae, secreted out of a restaurant in New York City, although possibly having lesser legal ramifications than possession of the Euphyta version.

the most abundant genus, are typically composed primarily of complex polymers of long-chain hydrocarbons, indicative of their origins in the petrochemical industries. *Textileria* (Figures 10 and 11) is a varied genus morphologically, but all species tend to be composed of various fabrics. There was some initial confusion with species composed of polyester materials, and these have subsequently been placed in the genus *Plasticus*. They do indicate, however a possible point of divergence. *Metallicus*

Figure 10. *Textileria rosa* (holotype), *T. diantha* (holotype), *T. gerbera* (holotype), and *T. apis* (holotype) as decoration on a bicycle taxi in Malacca, Malaysia.

Figure 11. *Textileria* spp. decorative/ritual use and possible symbiosis in Barcelona, Spain.

(Figure 12) is an easily recognizable genus, often shiny and generally hard to the touch. There was some evidence for splitting the genus into several genera based on the specific type of metals, but plants were often composed of more than one alloy or pure metal, and it was decided that splitting the group would create many indeterminate taxa. To split the *Metallicus* also would create implications for the other genera, and we would have been forced to split these as well; for instance, species in the *Plasticus* are often composed of various polymers, species of the *Textileria* can be made up of many different fabrics, and so on. As mentioned before, however, in the case of polyester, it was decided that the plastic-ness of the material was more important than the fact that shirts can be made from it. *Calciumcarbonatia* (Figure 13) species are created primarily from seashells, but this genus also circumscribes the large concrete plants that can be found in some public squares. *Ductusadhesivia lilia* (illustrated at www.octanecreative.com/ducttape/fashion/wedding/photos.html (holotype)) is a unique genus made entirely from that ubiquitous problem-solver, duct tape. There are very few specimens of *Dentumadhesivium* found in the wild, but this genus has be found to be made of a moldable dental acrylic, which we hope is not previously used (see cam.arts.usf.edu/GS/artists/edmier_keith/edmier.html for an illustration of the *Dentumadhesivium epilobium* (ho-

Figure 12. *Metallicus nelumbo* (holotype) at use in an indoor pedestrian commercial setting (a.k.a. the mall).

Figure 13. *Calciumcarbonatia diversa* (holotype) found growing in an apparently symbiotic relationship with a basket in Myrtle Beach, South Carolina.

Figure 14. A purpoted reproductive organ of *Granitus cacao* (holotype) in Ilheus, Brazil, that after years of watching, proved to be non-viable.

lotype)). *Granitus* (Figure 14) species are all those composed of rock, regardless of the geology of those rocks. Again, the decision was made to keep all rock species as one genus rather than split them into rock type. There is some argument for creating a separate genus for precious gems set in precious metals in complicated arrangements as jewelry flowers. These species represent a complicated hybridization process with a long history of ethnobotanical use as ornamentation.

Silicus flowers (Figure 15) are those typified by the use of glass as the primary component. The Harvard University Natural History Museum maintains the greatest simularium of these the most exquisite examples of these plants. Created over the span of five decades beginning in 1886 by the glass artisans Leopold Blaschka and his son, Rudolph, these 3,000 models represent more than 830 plant species. Flowers made from glass are very common throughout all our collection areas. Fruits and vegetables made from glass are also becoming popular items in New York

Figure 15. *Silicus nymphaeus* (holotype) displaying amazing turgidity after being out of water for many decades, in Cambridge, Massachusetts.

City street fairs. *Lignus* (Figure 6) are plants that are constructed from the wood of Euphyta. *Papyroidia* (Figure 16) species include all those species described by the Japanese tradition of origami, as well as other more pedestrian paper plants. The origami have a long tradition of ethnobotanical use, and so have been carefully documented and classified by specialists. We leave the further elucidation of their classification to those published works. *Prophylactica* (Figure 17) is a very interesting monotypic genus represented by one collection from a restaurant in Bangkok, Thailand. The flowers are made from colored

Figure 16. *Papyroidia phaleonopsis* (holotype) attempting to camoflouge itself in an urban horticulture situation in New York, New York.

Figure 17. *Prophylactica saintpaulia* (holotype) surviving quite well despite being rootbound in the Cabbages and Condoms gift shop, Bangkok, Thailand.

condoms, and are hybridized with thin bamboo-like stems and cloth leaves. It is believed that this species was specifically engineered and developed for its current use as a pro-family planning and anti-AIDS instrument. *Simulacra* (Figure 18) is a new monotypic genus found in uptown Manhattan, New York City. Resembling a *Hibiscus* in appearance, the flower was pillow-like in shape, composed of a thin printed mylar cover capturing helium gas, which gave the species a lighter-than-air physicality. *Paraffinius* (Figure 19) seems to be composed of parts made of vegetable, animal, or mineral-based waxes and paraffins, limiting their range to more temperate environments. *Photophyta* (Figure 20) is made at least partially of objects that emit light such as light emitting diodes, fluorescent or incandescent lights, in a mechanism completely unrelated to the light-producing effects of luciferin and luciferase of the lightning bug (many genera of the Lampyridae family). The light-production of the *Photophyta* leads us to predict a possible commensal symbiosis between any photosyn-

Figure 18. A *Simulacra hibiscia* (holotype) used in a ritual setting.

Figure 19. *Paraffinius hibiscus* (holotype), a common species throughout Thailand.

Figure 20. *Photophyta clematis* (holotype) growing in a night market in Bangkok, Thailand.

Figure 21. *Celadonica bambusa* (holotype) in a rare construction/barrier use in Malacca, Malaysia.

thetic member of the Euphyta and *Photophyta*, with the Euphyta producing glucose from the incipient, albeit dim, light.

The *Celadonica* genus (Figure 21) is composed of any clay, ceramic, and/or glaze, leading to great durability and therefore second only to *Granitus* in terms of being a likely candidate for simulacrapaleoethnobotany research, although *Conglomeratium* (Figure 22) which is made of material that is an artificial mixture or conglomeration of rocks and minerals such as concrete is in a tight race for the distinction of being the most durable. On the other end of the

Figure 23. Clockwise from top left: *Polystyrin dendrobium* (holotype), *P. hibiscus* (holotype), and *P. plumeria* (holotype) found in a night market in Bangkok, Thailand, an apparent Simulacraceae hotspot.

durability spectrum, *Polystyrin* is composed of styrofoam or other polymers enclosing many minute air pockets, and is not likely to last more than a year in its original form (Figure 23), although the component materials may last in landfill for centuries, leading to simulacraphytoliths.

Ethnobotany

By world market standards, this family is of extreme economic importance, following close behind the main agricultural families Poaceae and Fabaceae. Given the absence of Simulacraceae in “wild” environments, describing the ethnobotany of this intriguing family is imperative. Interestingly, during the course of extensive informal interviews with cultural practitioners, we found no edible, medical, poisonous, or hallucinogenic to psychoactive uses for any

Figure 22. *Conglomeratium arachis* (holotype) and *C. mangiferum* (holotype) serving an advertising function outside Savannakhet, Laos.

species in this family (although we have found specimens morphologically similar to Euphyta hallucinogens, Figure 9). Instead, people throughout the world generally use Simulacraceae for artisanry, ritual, and ornament. Additionally, some Simulacraceae have utilitarian uses, including extensive use in modern construction.

Artisanal uses for Simulacraceae are quite frequent. Simulacraceae are frequently utilized in wreaths and bouquets, beading, and by school children in class projects. Such uses may relate also to the frequent ornamental uses of Simulacraceae. We have witnessed Simulacraceae's frequent use for ornamentation at multiple scales in zoo and museum displays, malls (Figure 12), hotel lobbies, and for personal ornamentation. And we have observed that the ever-increasing ritual use of Simulacraceae is becoming more frequent, from Christmas trees, to to *fantasticTextileria* sp. costumes (Figure 11), to Day of the Dead grave decorations.

Finally, it is worth noting that a number of Simulacraceae also have highly specialized utilitarian roles. Our research has uncovered surprising utilitarian Simulacraceae: as a trash can, a telephone, and a cell phone tower (Figure 24). Boardwalks and decking using Simulacraceae lumber is becoming increasingly common for seaside towns and residential housing. It is extremely durable, lightweight, attractive and relatively inexpensive. While generally composed of complex polymeric hydrocarbons, it is generally the product of recycling, and is therefore not directly reliant on non-renewable resources in the form of crude oil. With increasing alarm over the degradation of the Euphyta we have found growing use of Simulacraceae for such utilitarian items. In future work we hope to tie the Simulacraceae to the vast literature on material culture, décor of nostalgia, commodity networks, and nature deficit disorder.

Figure 24. *Metallicus pinus* var. *celltowerabscondium* (holotype), fufilling a hiding role in metro Detroit.

Discussion/Future Work

The work on Simulacraceae has only just begun, and it will be a burgeoning field in no short order we believe. A priority should be securing adequate funding from the support of well-endowed government agencies such as the National Science Foundation, United States Department of Agriculture, the National Institute of Mental Health, and the National Endowment for the Emancipation of the Humor Impaired (NEE-HI). To this end, we plan to convene a symposium on funding opportunities for research on the family at the Second World Simulacraceae Congress to be held in December, 2007 on Deira Palm Island, Dubai, one of three unique islands constructed in the shape of a palm tree (see Figure 25). This island itself raises the question whether this is a new genus, *Geoflora*, or merely a large-scale *Silicus*. With travel and conference money in our pockets, we plan to turn our attention towards the open topics of simulacrapaleoethnobotany, simulacrapolitical ecology, simulacraxenobotany (are there Simulacraceae on other planets?), new phakochemical structure elucidation techniques, better matrix muddling techniques, traditional Simulacraceae knowledge/teleological simulation knowledgebase (TSK, TSK) and endowed chairs in Simulacraceae studies. We hope to collaborate with industry (sponsorship with highly visible product placements gladly accepted) to determine the full spectrum of Simulacraceae ethnography in demographic focus groups. There is much to be done in this recently delineated and intriguing new plant family.

Figure 25. Proposed Palm Deira Island project in Dubai, home to the Second World Simulacraceae Congress upon its completion.

Conclusions

We have presented initial data on the phylogeny, ecology, phakochemistry, and ethnobotany of the heretofore undescribed yet economically important “plant” family Simulacraceae. Initial missteps led us to look at chemosystematics to derive Simulacraceae phylogenies. Small scale transects and inventories have revealed the high diversity of the family and tendency to hybridize among genera easily. The ethnobotany of the family has turned up some intriguing ceremonial, therapeutic, and decorative uses. These are just the first steps in a burgeoning new field that have led us to declare the 21st century “The Century of Simulacraceae”. Please consult www.simulacraceae.org to stay up-to-date on breaking news in Simulacraceae research.

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Appendix 1. List of Simulacraceae collections, including those from Rainforest Café *Plasticus* inventory of Nyack, New York in 2002, deposited in FAKE. (BRR cited below is (Bletter Reynertson Runk).)

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus x *Textileria viola* BRR	NB 22, 13-Jan-02, New York, NY, Manhattan, outside of Keepers Storage, 444 E. 10th St. and Ave. D,	Single stem found on sidewalk, possibly abandoned from storage items.
Plasticus anthurium [Red] BRR	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 41, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus asparagus BRR (Spider Plant)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 44, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus aster [Purple] BRR (Daisy)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 31, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus aster var. *aqueous* BRR (Daisy)	NB 17, 15-Dec-01, New York, NY, Manhattan.	
Plasticus bougainvillea [Orange] BRR (Bougainvillea)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 9, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus bougainvillea [Red] BRR (Bougainvillea)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 11, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus bougainvillea [Yellow] BRR (Bougainvillea)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 10, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus caladium BRR (Caladium)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 17, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus cannabis BRR (Marijuana)	NB 16, 17-Nov-01, New York, NY, Manhattan, inside Ghenet restaurant, 284 Mulberry St., near Houston,	In back of restaurant near bathrooms, tree form of plant in large tub.
Plasticus chamaedorea BRR (Xaté)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 38, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus chlorophytum BRR (Spider Plant)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 2,17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus citrus BRR (Lemon)	NB 7, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus cornus [Pink] BRR (Dogwood)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 8, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus cornus [White] BRR (Dogwood)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 7, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus croton [Red] BRR (Croton)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 13, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus croton [White] BRR (Croton)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 12, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus desmoncus BRR (Palm)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 24, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus erica BRR (Mountain Laurel)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 6, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus euterpe BRR (Açaí)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 39, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus fagus BRR (Broadleaf)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 20, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus ficus [Variegated] BRR (Ficus)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 40 17-Jan-02 West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus ficus BRR (Paddle Leaf)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 21, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus ficus BRR (Strangler Fig)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 4, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus geranium [Pink] BRR (Geranium)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 34, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus hedera BRR (Ivy)	NB 20, 17-Jun-01, Quogue, NY, inside suburban diner,	Floral arrangement in diner banquet, in flower boxes with numerous other species.
Plasticus hedera [Plain] BRR (Ivy)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 22, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus hydrangea BRR (Hydrangea)	NB 13, 15-Dec-01, New York, NY, Manhattan, inside 452 W 13th St. & 10th Ave., 2nd floor,	Abandoned meat-packing warehouse, cold bathroom, found in pot used as door stop, quite dusty.
Plasticus iris BRR (Iris)	BRR 48, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus laurus BRR (Bay)	NB 24, 14-Jan-02, New York, NY, Manhattan, Middle of NW side of 455 FDR Dr. at Grand St.	Intertwined with ornamental tree (Quercus?) in grass lawn, possible symbiotic relationship?
Plasticus lilium BRR (Lily)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 29, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus magnolia [White] BRR (Magnolia)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 26, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus mauritius BRR (Palm)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 46, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus musa BRR (Banana)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 5, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus narcissus BRR (Daffodil)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 30, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus nephrolepus BRR (Fern)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 18, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus oncidum BRR (Dancing doll orchid)	NB 18, 31-May-01, Honolulu, HI, inside Hilton hotel apartments, 2003 Kalia Rd, 1st floor bathroom,	Floral arrangement in bathroom hotel, low light, high humidity.
Plasticus parthenocissus BRR (Virginia creeper)	NB 9, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus phaleonopsis BRR (Moth Orchid)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 42,17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus philodendron BRR (Pothos)	NB 25, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Found in dried out aquatic area, perhaps fallen from the wall and ceiling where it was apparently had a climbing habit and was interspersed with 49 other species of *Plasticus*.
Plasticus philodendron BRR (Philodendron)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 19,17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus plumeria BRR (Plumeria)	NB 19, 2-Jun-01, Kailua Kona, HI, inside Keahole-Kona International Airport shop, Airport Rd.,	Lei arrangement from airport shop rack, found with Plasticus hibiscus and *Plasticus* nephrolepis.
Plasticus quercilex BRR (Hollyoak)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 25, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus rosa BRR (Rose)	NB 10, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.
Plasticus rosa BRR (Rambling Rose)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 47, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus rosa var. *aqueous* BRR (Watery rose)	NB 11, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.
Plasticus rosa var. *multiflora* BRR (Multiflora rose)	NB 14, 15-Nov-01, New York, NY, Brooklyn, inside 10 Jay st. and John St., 9th floor, ornamentation on sculpture.	Large, high-ceilinged, warehouse party space. Found as
Plasticus schefflera BRR (Schefflera)	NB 15, 15-Dec-01, New York, NY, Brooklyn, east side of Bedford Ave., between S 5th St. and S 4th St.,	Attached to existing Euphyta street tree in a sidewalk plot.
Plasticus spathifolium [Plain] BRR (White Sail)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 15, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus strelitzia BRR (Bird of Paradise)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 45, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus tilandsia BRR (Bromeliad)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 43, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus viola BRR (Violet)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 33, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus vitus BRR (Grape)	NB 8, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.
Plasticus wisteria BRR (Wisteria)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 14, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus wisteria BRR (Wisteria)	NB 21, 17-Jun-01, Quogue, NY, inside suburban diner,	Floral arrangement in diner banquet, in flower boxes with numerous other species.
Plasticus zingiber BRR (Torch Ginger)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 1, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. BRR (Nakuju)	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 3, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. BRR	Nat Bletter 12, 29-Dec-01, New York, NY, Brooklyn, Costume of bar denizen, Bugaloo, 168 Marcy & S. 5th St.	Smoky bar, with “white” theme dress. Plants found wrapped around one participant dressed in roman toga.
Plasticus sp. [Variegated] BRR	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 16, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [Variegated]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 23, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [Magenta]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 36, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [Magenta]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 28, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store

Taxa [Variety] (Vernacular)	Collection	Habitat
Plasticus sp. [Purple]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 27, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [Purple]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 37, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [Red]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 32, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Plasticus sp. [White]	Nat Bletter, Kurt Reynertson & Julie Velasquez Runk 35, 17-Jan-02, West Nyack, NY, inside Palisade Center shopping mall, on outside wall of Rain Forest Café store	Simulacraceae hotspot outside on wall of Rain Forest Café store
Textileria rosa BRR (Rose)	Nat Bletter 23, 13-Jan-02, New York, NY, Manhattan, inside Rivington Guitars practice room, 125 Rivington and Essex,	Found on floor of rock band practice space with safety pin attached. Most likely a human ornament of some sort.