

SISEF and Italian forest science: thirty years of shared progress

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Founded in 1995, the Italian Society of Silviculture and Forest Ecology (SISEF) has promoted scientific rigour, inclusivity and collaboration to advance forest sciences in Italy. SISEF supports early-career researchers through initiatives such as its biennial congresses, which provide a platform for scientific exchange and collaboration at national and international levels. Recently, SISEF has expanded its activities to encompass urban forestry and supported the establishment of the AlberItalia Foundation. This foundation focuses on mitigating climate change through nature-based solutions, large-scale tree planting and civic engagement in reforestation and forest stewardship. SISEF has also provided scientific expertise in developing the National Forest Strategy, which was approved in 2022 and provides a framework for sustainable forest management in Italy. Through its platinum open access journals, Forest@ and iForest - Biogeosciences and Forestry, SISEF promotes the dissemination of scientific knowledge. As it marks its thirtieth anniversary, SISEF remains committed to addressing both current and emerging challenges in sustainable forest management, as well as contributing to broader efforts to address climate change.

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The birth of SISEF in the landscape of Italian forest science

The establishment of the Italian Society of Silviculture and Forest Ecology (SISEF - https://sisef.org/) in 1995 marked a significant development in the field of forest science in Italy. Before this, the Italian forestry community lacked a dedicated and open scientific society to serve as a reference point for research and knowledge exchange.

Italy has a longstanding tradition of forestry institutions and academic achievement. The origins of formal forestry education and research can be traced back to the foundation of the *Istituto Forestale di Vallombrosa* in 1869, established within the Abbey of Vallombrosa in Tuscany. Initially created to train officials for the Italian State Forest Administration, the Institute recognized early the strategic importance of forests for national development and environmental management. Under the leadership of Adolfo de Bérenger, the Institute became a center for forestry educa-

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tion and professional practice.

In 1912, the institution evolved into the *Istituto Superiore Forestale Nazionale* and relocated to Florence, where it played a central role in the education of Italian foresters and in the advancement of forestry research. The legacy of these institutions provided the foundation for a modern approach to forestry that integrated scientific and technical perspectives. Building on this legacy, university courses in Forest Science were first established in Florence, then in Padova, and subsequently at several other universities.

The Italian academic tradition in forestry was shaped in the twentieth century by several prominent figures. Aldo Pavari made significant contributions to forest and silviculture, particularly through his work on phytoclimatic classification and the integration of ecological principles into forest management. Pavari's approach to silviculture, which balanced productive and ecological objectives, has influenced both research and practice in Italy. In 1923, Pavari became the first director of the Istituto Sperimentale di Selvicoltura, which for decades was an important center for forest research and formed the founding core of today's CREA-Foreste. Alessandro de Philippis advanced the understanding of Mediterranean forestry by focusing on the ecology of native and exotic species, silvicultural systems, and the relationship between forestry and broader environmental issues. His work highlighted the importance of ecologically oriented silviculture, especially in the Mediterranean context. Lucio Susmel is recognized for his research on uneven-aged forest management and, ahead of its time, close-to-nature silviculture, concepts that have become increasingly relevant in contemporary forestry.

Starting from the 1980s, some research institutes of the National Research Council (CNR) also began to focus their scientific interest on forest ecosystems and their management.

Notwithstanding these traditions and contributions, forestry science in Italy was characterized for much of the twentieth century by a relatively closed and exclusive framework.

A notable development was the establishment of the Italian Academy of Forest Science (AISF) in Florence in the 1950s. Consistent with the structure of similar academies, the AISF operated as an elite and selective body, with membership granted through co-optation and recognition of professional merit. While the AISF played an important role in maintaining scholarly standards and ensuring continuity within the field, its governance model limited opportunities for broader participation, particularly for early-career researchers and individuals outside established academic networks.

The establishment of SISEF in 1995 was therefore a deliberate step towards a more inclusive and participatory model, in line with the evolving needs of the scientific community and the challenges facing Italian forests. By opening its doors to a diverse group of researchers, professionals, and students, SISEF has broadened opportunities for scientific exchange and fostered the growth of a new generation of forest scientists. This transition has en-

abled Italian forestry research to build on its rich traditions while responding dynamically to contemporary ecological and social challenges.

From challenging origins to scientific leadership

The establishment of a scientific society, such as SISEF, is an important milestone in the development of any academic discipline. Scientific societies play essential roles in the dissemination of research, the establishment of standards, the promotion of interdisciplinary dialogue, and the support of professional development. In the context of forest sciences, which inherently integrate ecological, social, and economic dimensions, the presence of an inclusive and active society is particularly valuable. It enables the coordination of diverse research efforts, supports the synthesis of knowledge necessary for sustainable forest management, and enhances the visibility of national research contributions on the international stage.

However, the early years of SISEF were not without challenges. In a landscape dominated by traditional academic circles, the emergence of a new, independent scientific society was met with a fair degree of skepticism and, at times, even open opposition. Such reactions, after all, are nothing new in the world: the academic environment has often been characterized by a certain conservatism, with established institutions sometimes viewing new initiatives as unnecessary disruptions to the status quo. The creation of SISEF was no exception to this pattern. Its founders and early members had to navigate a climate in which innovation and openness were not readily embraced and the legitimacy of the new society was closely scrutinised.

Despite these obstacles, the founders and supporters of SISEF persevered, motivated by a vision of scientific excellence, inclusivity, and collaboration. Overcoming the initial resistance required determination, as well as a willingness to engage in dialogue and demonstrate the value of a more open and participatory approach to forest science. Gradually, their efforts began to pay off. As SISEF established its autonomy and demonstrated the quality and relevance of its scientific initiatives, it began to attract a growing community of researchers, practitioners, and students. This emerging network shared the conviction that advances in forest science are best achieved through diverse viewpoints and broad participation,

In retrospect, the early skepticism that greeted SISEF's creation can be seen as part of a familiar cycle in academic life, where new ideas and organizations must prove their worth before gaining acceptance. The society's subsequent growth and achievements stand as evidence of the enduring value of perseverance and openness to innovation, even in the face of initial resistance.

Supporting progress in Italian forest science and policy

The activities of SISEF have been characterized by methodological rigor and consistent quality. Over the past three decades, the society has played an important role in advancing forestry sciences in Italy, supporting a community of researchers and practitioners engaged in scientific and technical development.

Italian researchers in forest ecology, silviculture, and forest management have, in recent years, achieved international recognition. Their contributions have enhanced global understanding of forest ecosystems and sustainable management practices. This is reflected not only in the volume and impact of their scientific work but also in their participation in international research networks, collaborative projects, and policy dialogues. Through these efforts, Italian forestry science has become influential in both academic discussions and practical forest management, contributing to the advancement of sustainable forestry at the global level.

A notable aspect of SISEF's work is its support for early-career researchers. The society organizes conferences, publishes research, and promotes activities that facilitate professional development, networking, and the exchange of ideas among emerging scientists. The biennial SISEF congresses have become a central scientific forum for Italian forestry, encouraging dialogue and collaboration on both national and international levels.

SISEF's influence now extends beyond academia into forest policy, planning, and public engagement. In recent years, for example, the society has increased its focus on urban forestry, a field dedicated to the management of trees and green infrastructure in urban and peri-urban areas. Urban forestry aims to enhance urban resilience, improve air quality, promote biodiversity, and provide ecosystem services. SISEF contributed to organizing the first World Forum on Urban Forests, an event that helped establish Italy's role in advancing sustainable urban forestry and promoting the concept of biocities, urban areas designed to integrate natural systems for both human and ecological well-being. This approach is further developed through the EFI Biocities Facility in Rome, led by SISEF founder Giuseppe Scarascia Mugnozza. The facility serves as a center for research and policy on urban green infrastructure, addressing challenges such as climate change and biodiversity loss.

In addition, SISEF has supported the establishment of the AlberItalia Foundation (https://www.alberitalia.it), which focuses on mitigating climate change through nature-based solutions, including large-scale tree planting and sustainable forest management. The foundation also promotes public awareness, environmental education, and civic engagement in reforestation and forest stewardship. Through collabora-

tive projects and public campaigns for responsible tree planting, AlberItalia, guided by SISEF's scientific expertise, functions as a platform for translating research into climate action and community benefit.

SISEF's involvement in forest policy is evident in its contribution to the development of Italy's National Forest Strategy (SFN), adopted in 2022. The SFN provides a framework for the management, conservation, and enhancement of Italy's forest resources. SISEF has contributed scientific expertise and evidence-based recommendations throughout the strategy's development. Its members have participated in working groups, technical committees, and public consultations, facilitating dialogue among scientists, policymakers, and stakeholders. This participation has informed key elements of the SFN, including the promotion of sustainable forest management, the integration of ecosystem services into planning, and the adaptation of policy to address challenges such as climate change, biodiversity loss, and socio-economic changes in rural areas.

By connecting research and policy, SISEF has contributed to the translation of scientific knowledge into practical strategies for forest stewardship. The society has promoted approaches such as adaptive management, participatory planning, and advanced monitoring technologies, which are now incorporated into the SFN and contribute to science-based forest governance in Italy.

Together, these initiatives underscore SISEF's commitment to integrating science, policy, and practice, and highlight its ongoing contribution to the sustainable management of Italy's forests and the broader effort to address climate change.

Communication and dissemination: the role of SISEF's journals

For more than two decades, the journals published by SISEF have served as platforms for scientific and technical communication in forest sciences. SISEF currently supports two journals: Forest@ (Rivista di Selvicoltura ed Ecologia forestale – https://foresta.sisef.org), published in Italian since 2004, and iForest - Biogeosciences and Forestry (https://iforest.sisef.org), an international journal launched in 2008.

Forest@ focuses on topics relevant to Italy and the Mediterranean region. By publishing in Italian, the journal increases accessibility for practitioners, policymakers, and students at the national level, thereby strengthening the connection between scientific research and forest management practices in local and regional contexts.

iForest is an international journal that welcomes contributions from researchers worldwide. Covering a broad range of topics in forestry, ecology, and bio-geosciences, iForest has become a recognized outlet for scientific work. Through this jour-

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nal, SISEF has increased the visibility of Italian research internationally and facilitated interdisciplinary and cross-border knowledge exchange.

Both Forest@ and iForest operate under a platinum open access model, providing free access for both authors and readers, with no article processing charges, submission fees, or subscription costs. This approach distinguishes SISEF's journals in a publishing environment where access to scientific communication is often limited by financial barriers. SISEF's adoption of platinum open access reflects a commitment to equity, inclusivity, and the unrestricted dissemination of scientific knowledge. By eliminating economic barriers, SISEF ensures that research findings are accessible to everyone.

Through its journals, SISEF has increased the visibility of Italian scientists, brought their work to a global audience, and supported the development of a collaborative scientific community. The society's commitment to non-commercial, open-access publishing continues to enhance the quality and reach of forestry research, demon-

strating the continued relevance of society-published journals in the contemporary scientific publishing landscape.

A brief appraisal looking ahead

As SISEF marks its thirtieth anniversary, its history underscores the important role of scientific societies in advancing academic disciplines. Since its foundation in 1995, SISEF has provided an inclusive and participatory platform for researchers. students, and professionals, facilitating the dissemination of research, the establishment of professional standards, and the promotion of interdisciplinary dialogue within forest sciences. Over the past three decades, the society has contributed significantly to the development of Italian forest research, enabling it to address complex scientific, ecological, and social challenges while maintaining alignment with international agendas.

Looking ahead, SISEF is well-positioned to continue supporting scientific innovation and collaboration, both of which are essential for addressing ongoing and emerging issues such as climate change,

biodiversity loss, and sustainable forest management. Through its sustained commitment to scientific excellence and inclusivity, SISEF is expected to remain a relevant actor in the stewardship and advancement of forest sciences in Italy and beyond.

Postscript

SISEF was founded in the spring of 1995 in Viterbo, at the University of Tuscia, by a small group of academics: Naldo Anselmi, Ervedo Giordano, Giuseppe Scarascia Mugnozza, and Riccardo Valentini. They were soon joined by Umberto Bagnaresi, Marco Borghetti, Raffaello Giannini, Paolo Menozzi, and Franco Viola. Over the years, the society has been led by several presidents, in chronological order: Franco Viola (1995-1999), Giuseppe Scarascia Mugnozza (1999-2003), Marco Borghetti (2003-2007), Giuseppe Scarascia Mugnozza (2007-2011), Piermaria Corona (2011-2015), Marco Marchetti (2016-2019), Renzo Motta (2020-2024), and Giorgio Matteucci (2025-present). The opinions expressed in this article are solely those of the author.

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