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EDVARD AUGUST VAINIO

1853—1929

BY

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E. Vainio

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In the spring of 1929 death ended the lichenological activities carried on with unremitting zeal for more than 50 years by Dr. EDVARD VAINIO's eye and pen. Most of his last work, the fourth volume of the *Lichenographia fennica*, was left on his worktable; it was a manuscript to which he had devoted the greatest part of his time from the beginning of the year 1924. The manuscript was, however, in most places in need of a last finishing touch and, moreover, lacked some important completions. It was necessary that a real expert should draw up the missing portions and render the work fit for printing.

We are greatly indebted to Dr. B. LYNGE, the celebrated Norwegian lichenologist, for his carrying out of this exacting work. He has with the greatest possible care filled what is lacking and otherwise given the work a most conscientious finish.

Now that the fourth part of the *Lichenographia fennica*, Dr. VAINIO's last literary achievement, has been passed into the hands of lichenologists, a short obituary of its author is published below. This obituary is published in the same volume of the *Acta Societatis pro Fauna et Flora Fennica*, to which the *Lichenographia fennica* IV belongs. — The author of the obituary is much indebted to his friend, Dr. B. LYNGE, for translating of the following paper into English.

EDVARD VAINIO was born in Pieksämäki, Central Finland, on the 5th of August, 1853. His parents were the bailiff CARL JOHAN LANG and ADOLFINA POLÉN. His love of nature, and of collecting, became visible already at a very early age. In his games flowers played a great part, and before he began school he had a collection of minerals. There were many

children in his home, and his eldest brother, later professor juris, was also warmly interested in nature. This certainly gave the younger brother many valuable impulses.

In the beginning of the 1860'ies his father was transferred to the district Hollola near lake Vesijärvi in Southern Finland. The family moved thither, and settled at a farm Laitila, near the border of Asikkala parish. The nearest farm was the property of the bailiff NORRLIN, the father of JOHAN PETTER NORRLIN, the prominent plant geographer. JOHAN PETTER NORRLIN, at that time student, then forester, and later amanuensis at the Botanical museum of the university in Helsinki, made in summer time frequent excursions in the Vesijärvi region. EDVARD, the son of the neighbouring family, 11 years younger, often joined the excursions, and eagerly absorbed the knowledge of the plants which the excursions could not fail to give him.

Through the lectures of WILLIAM NYLANDER at the university of Helsinki NORRLIN had become warmly interested in the cryptogams, especially the lichens, and he had trained himself up to an excellent expert on this group of plants which is so well represented in the Northern flora.

During these excursions with Norrlin the young school-boy EDVARD LANG (VAINIO) laid the solid foundation of the knowledge in which he later became the great master. More and more the young college boy made independent excursions. During the summers 1868 and 1869 he enthusiastically devoted himself to the collecting of plants, and he supplied much valuable information for NORRLIN's flora of South-Eastern Tavastland which was printed in 1870.

In 1870 he left the lyceum at Jyväskylä for the university of Helsinki. At the lyceum he had been the class-mate of the famous historian and statesman J. R. DANIELSSON-KALMARI. It was quite natural that botany became VAINIO's principal study at the university. His studies resulted in the degree of »cand. philos.» in 1874 and »licentiate of philosophy» in 1878. He became doctor of philosophy in 1880.

The lichens and their study attracted his greatest interest during his university years. NORRLIN, and also NYLANDER who then lived in Paris, helped him with the determination of the most difficult species. But it did not take long before VAINIO became capable of clearing up intricate questions independently. NYLANDER in some cases helped him to determine his large collections from the summers 1873 and 1874, but already in 1875 VAINIO could determine his rich material himself.

VAINIO soon distinguished himself as an exceptionally sharp-eyed collector. In the summers 1873 and 1874 he collected no less than 472 different species of lichens in the parishes Luhanka and Korpilahti in Central Finland. And he found 324 species during the excursions which he undertook during the spring of 1875 in the town of Viipuri (Viborg) and its nearest vicinity, in addition to his profession as a teacher.

Already during his university years VAINIO distinguished himself as an excellent connoisseur also of mosses and vascular plants.

His inclination led him to lichenological work, but he also worked not a little on plant geography during his younger years. He was introduced to this branch of science by NORRLIN, since 1873 his brother-in-law. In 1870—71 NORRLIN had published the classical works: »Bidrag till sydöstra Tavastlands flora» (English: Contributions to the knowledge of the flora of South-Eastern Tavastland) and »Flora Kareliae onegensis I». These two works had laid the foundation of the investigation of the vegetation in Finland. Several young men worked on this field on the initiative and under the guidance of NORRLIN, one of the first and most prominent of them being VAINIO.

VAINIO's three first botanical papers were published in 1878, and two of them were topographical and also generally floristic. One of them: »Florula Tavastiae orientalis. Havainnoita Itä-Hämeen kasvistosta» deals with the vegetation and the flora in Eastern Tavastland where VAINIO pursued his studies in the summers of 1873 and 1874. The other,

presented as a thesis for the degree of »licentiate», has the title: »Kasvistonsuhteista Pohjais-Suomen ja Venäjän-Karjalan rajaseuduilla» (English: On the Flora of the Border Land between Northern Finland and Russian Carelia). It is based on material collected on very strenuous excursions in 1875 and 1877 in the desolate regions between 63° and 66 1/2° n. In both of these papers the vegetation and the localities are described according to NORRLIN's methods. In his above mentioned thesis VAINIO paid special attention to the study of the plant localities. He worked out his own scales for the indication of moisture and light in each locality. He classified the localities according to a scale which he had worked out, and which was very perspicuous. It is based on the moisture and light conditions of the localities, and on the physical properties of the soil. The descriptions of the localities and their vegetation are thorough and consistent, they are certainly among the best that have been written in Finland on these subjects. Both these papers hold a prominent position in the history of Finnish botany, being the first publications on plant geography in the Finnish language, and as such the fundament of the Finnish terminology on plant geography.

Besides in these areas, the vegetation of which VAINIO had described in the above mentioned papers, he also made plant topographical investigations in Finnish Lapland during the summer of 1878, and during his journey to West Siberia in 1880. His notes on these subjects, and his floristic observations during these travels were not published till much later. All of these papers were written in French or, in part, in Latin. His: »Notes sur la flore de la Laponie finlandaise» were published in 1891, his »Végétation du pays des Vogoules (des Manses) en Sibérie occidentale» and »Enumeratio Plantarum Vascularium et Muscorum in viciniis fluminis Konda (circ. 60° lat. bor.) in Sibiria occidentali crescentium» as late as in 1928.

The greater part of VAINIO's scientific papers belong, however, to the sphere of lichenology.

In part lichenological was already the above-mentioned paper on the flora of Eastern Tavastland (from 1878, dated 1876), where the enumeration of the lichens is surprisingly large, viz. 472 species in all. But his first purely lichenological paper is his »Lichenes in viciniis Viburgi observati. Tietoja Viipurin seudun jäkäläkasvistosta.» It was published at the same time as the Tavastland paper, but dated three months earlier. This paper gives an account of the lichen flora in and near the town of Viipuri (Viborg) in Eastern Finland. The introduction contains a review of the localities of the lichens, written in Finnish, with a description of several species, new to science.

VAINIO's next lichenological paper was his »Tutkimus Cladoniain phylogenetillisestä kehityksestä» (English: An Investigation on the Phylogenetic Development of the Cladoniae) from 1880, a paper which qualified him for the degree of lecturer on botany (»docent») at the university of Helsinki. This paper of 62 printed pages was sensational on account of its modern theme, as well as its youthful freshness and its originality. The author manifests himself as an eager adherent of the theory of evolution. He demands categorically that the old chains of systematical science should be broken, and that this science should be transformed into a genealogy which aims to prove the correctness of its conclusions in a convincing manner, and that it should not be content with a mechanical arrangement based on similarities and differences. His thesis is an attempt in this direction, most probably the first one in lichenology: »In this paper we have made an attempt to build up, on logical arguments, a system for an exceptionally polymorphous tribus or genus, the Cladoniaceae. And we have also been anxious to describe the main features of its genealogy, based on the facts which we have succeeded in finding.» »It has been our intention», continues the author in the introduction, »to follow the development of the original form to the recent forms in the Cladoniaceae for each organ, for each character. This will allow us to penetrate into the method, according to which we must

pursue our investigations, and we will be able to make up the deficiencies of our methods if we should find such deficiencies.» The most important result of this paper is the proof that the podetium of the Cladoniae must be regarded as the stalk of the apothecium, viz. representing an extension downwards of the lower part of the excipulum. This result strongly supports the view that the Cladoniae are related to Baecomyces.

The first large lichenological paper from VAINIO's hand was his »Adjumenta ad Lichenographiam Lapponiae fennicae atque Fenniae borealis», of 336 pages, in 1881 and 1883. It is based on VAINIO's own excursions in the frontier districts between Northern Finland and Russian Carelia, and in Finnish Lapland. It comprises the collections of three summers in regions where travelling was then very difficult. The number of species is as large as 626, 70 of them new to science, in addition to numerous new formae. The clearing up of many intricate questions of synonymy is especially meritorious. The diagnoses are very careful and comprehensive. The work contains numerous corrections of former statements in literature, and it brings us much additional information. The new species have proved to be exceptionally well limited. On the whole the paper is a highly valuable contribution to the knowledge of the Northern lichen flora, and the »Adjumenta» made the author's name known to all lichenologists.

VAINIO was now competent to undertake the most exacting lichenological tasks.

He became lecturer (docent) on botany in 1880, and university grants made it possible for him to study some time at foreign museums. He worked in 1882 in Rostock and Berlin. In 1884—85 we find him eagerly occupied in the Botanical museums of St. Petersburg, Moscow, Vienna, Genève, Paris and London (he had received an »Alexander-scholarship»). In the first part of 1885 he made a lichenological voyage to Brazil. During 3 1/2 months he collected lichens in the neighbourhood of Rio de Janeiro and in the province of Minas Geraës.

During the following years the results of these studies and travels became visible.

In 1886 Vainio published three papers, small, but in part very important from the view of synonymy: »Revisio lichenum in herbario Linnaei asservatorum», »Revisio lichenum Hofmannianorum», and »Notulae de synonymia lichenum».

In the following year, 1887, came a gigantic work from VAINIO'S hand, the famous »Monographia Cladoniarum universalis». This was the first part of the monograph; seven years later followed the second part, and some years later the third volume, in all 1277 pages. This monumental work was written in Latin, and in part in French, two languages which VAINIO from that time almost exclusively used in his papers. The monograph contains detailed descriptions of old and new species, very exhaustive elucidations on synonymy, careful records of the geographical distribution, and in the third, general volume a comprehensive description of the ontogenetic development of the Cladoniae, and their general structure, exterior and interior, their phylogeny, variability and the general causes of the variability, and also their general geographical distribution. At the end of the volume there is a perspicuous Clavis Specierum. In this work VAINIO contended for views which in several points were in opposition to the opinions of earlier authors, and he also ventured upon several problems which had formerly not been attacked. — This magnificent work was received with the greatest admiration by all lichenologists, and already the first volume gave its author, then 34 years old, rank as one of the most prominent lichenologists.

The third large work from VAINIO'S pen: »Étude sur la classification naturelle et la morphologie des lichens du Brésil, I—II», 526 pages, 1890, gave its author the reputation of a very prominent expert on tropical lichens. VAINIO had himself collected the material for this paper during his Brazilian travels in 1885. The definitive preparation of the »Étude» was made in Paris where he for this purpose spent some time in 1889—90.

In the general part of this work he dealt with the contested question of the nature of the lichens. He unhesitatingly subscribed to SCHWENDENER's theory, in opposition to NYLANDER, the leading authority on the taxonomy of the lichens, and also to most other contemporaneous lichenologists. The most important merit of this work is his new lichen system, in which he drew the full consequences of the true nature of the gonidia. He united the lichens with the Ascomycetes to one systematical group. VAINIO negated the group Hymenolichenes, a view which attracted much attention. The incorrectness of this view could readily be proved, and during his last years VAINIO himself gave it up. In the work 516 species (exclusive of the Cladoniae) are dealt with, and 240 of them are new to science. The species diagnoses are very exhaustive, and they have received much appreciation from all quarters. — VAINIO distributed a part of his collections in the «Lichenes Brasilienses exsiccati I—II», 1891—92, Nos. 1—1593. According to verbal information from VAINIO himself, the collection was distributed in 8 sets some of which were, however, rather incomplete.

In 1888 VAINIO wrote a popular record of his Brazilian travels (280 pages): «Matkustus Brasiliassa. Kuvaus luonnosta ja kansoista Brasiliassa» (English: Travels in Brazil. A Description of Nature and People in Brazil).

The greater number of VAINIO's later publications were the result of his assiduous work on the determination of collections of lichens received from many parts of the world. Most of them were printed in scientific periodicals outside Finland. He treats the lichen flora of Greenland, Novaya Zemlya, Northern Siberia, Central Siberia, Central Asia, the Caucasus, the Crimea, Japan, the Philippines, Siam, New Caledonia, Erythraea, Central Africa, South Africa, Madagascar, Teneriffe, the Antarctic, Chile, Columbia, Trinidad, the Antilles, Mexico a. o. In all these papers we find descriptions of lichens new to science. The most important of these papers are the largest ones: «Lichenes in viciniis stationis hibernae expeditionis Vegae prope pagum Pitlekai in Sibiria

septentrionali, a d:re E. Almquist collecti» (1909, 175 pages), »Additamenta ad Lichenographiam Antillarum illustrandam» (1915, 226 pages), containing 110 new species, further the »Lichenes insularum Philippinarum», I—IV (1909—1923, 503 pages), containing no less than 435 new species, and a survey of the author's general system of lichens. In connection with these papers on exotic lichens we must mention a paper, published in 1928, on lichens, collected by VAINIO himself during his West-Siberian travels 48 years earlier.

VAINIO had not published anything on the lichen flora of his own country, worthy of mention in this connection, after his »Adjumenta» in 1881—83. But towards the end of 1917 he received a commission from the Societas pro Fauna et Flora Fennica, on the initiative of Professor A. PALMGREN, to work out a complete flora of the Finnish lichens. His attention became then again chiefly directed towards the lichens of his native country. He started this work with much ardour, and during the last 11 years of his life he bestowed the greater part of his energy on the »Lichenographia fennica». He was fully aware that on account of his age it was very uncertain whether he would be able to complete a work in several large volumes. Accordingly VAINIO began with the most difficult groups, firstly the Pyrenocarporous lichens which most lichenologists had hesitated to attack. He reserved the easier groups for the later volumes. In his opinion the greater part of the recent manuals of European lichens were chiefly compilations from earlier works. Resenting this method Vainio thoroughly and critically worked over all the species again. The three volumes which his eye and his hand succeeded in completing have already proved themselves to be the most valuable work on the lichens of Northern Europe published for a long time past. Competent authorities acknowledged the first volume to be classic from the day of its publication, and numerous lichenologists have awaited the completion of every new volume with great expectation. At his death the manuscript of the fourth volume lay for the greater part ready on his work-table by the

side of this microscope, and it is undoubtedly of the same high standard as the former volumes. According to Vainio's plan the whole »Lichenographia fennica» should be complete in seven volumes. It is now the task of the younger Finnish lichenologists to complete it. The old master used to say of the higher lichens which should form the conclusion of the work: »You young people will certainly manage them.»

Through all these above-mentioned papers, and many others, VAINIO's contributions to the research work on the taxonomy of the lichens have been exceptionally important. The extent of his performance is, perhaps, most exactly expressed by the number of species new to science which he has described. According to his own estimate the number can be placed at nearly 1700. In addition to these he has described many new genera, and hundreds of formae of inferior rank. His name has also been affixed to very many species, as an indication of his new limitations of the genera in question.

Undoubtedly VAINIO's importance amongst lichenologists is much higher than is evident from the above. He is superior to most other lichenologists, perhaps to all of them, in the keenness of his acquaintance with the forms and the carefulness of his diagnoses. During his later years he limited his species more and more narrowly. But his descriptions of the new species were never mechanical. Every new species which he proposed was based on a very careful examination and a comprehensive revision. To this came also an innate profound systematical intuition which protected him against mistakes. It was also this intuition which enabled him to form his own firm conception of the general system of the lichens.

But the writer will give the word to a colleague who has a professional capacity to estimate VAINIO's importance as a lichenologist and will cite a part of a deliverance which Dr. B. LYNGE, the editor of the present volume, some years ago sent to Professor A. PALMGREN: »During many years of assiduous work the Finnish lichenologist Dr. EDV. A.

VAINIO has determined collections of lichens from practically all the world. His field of work extends from the floras of the High Arctic through the incredible richness of forms of the Tropics and right down to the poor, but highly interesting Antarctic regions.

These works are of a quality, and often also of a size which make them the fundament for our knowledge of the lichen flora of the region in question.

His eagle eye, incredibly discriminative, was able to establish a vast number of new species which have resisted the tooth of time in an exceptional manner, and to clear up highly intricate groups which were formerly very obscure.

His work has also been of fundamental importance to the more general systematism. It is sufficient to call to mind the contribution which he made by his famous paper on the lichens of Brazil.

His great Monographia Cladoniarum will for all time be given the first rank among the monographic lichen literature of our time.

Through all these papers Dr. VAINIO has acquired an uncontested position as the Grand Old Man of lichenology. He is an ornament to his science, and an honour to his country.»

VAINIO's brilliant contribution to the lichenological research work is so much the more admirable because he worked under unfavourable, in part very difficult conditions. Until the beginning of the 1890'ies, when VAINIO had already written his three large books, he had no public appointment. Born and educated in a poor home he had to procure his own means of support already during his student years at the university. We find him in several modest occupations: as authorized translator in Finnish and Swedish for the government of the province Nyland in 1874, as teacher of mathematics, natural science, physics and gymnastics at the lyceum in Viipuri (Viborg) in 1875, as extra teacher of botany at the horticultural school at Alkärri in Helsinki 1879—82, at the public Swedish lyceum in Helsinki 1881—84, at the Fin-

nish primary school 1882—84, at the Finnish girls' school 1882—84, and at the continuation course 1883—86. — And yet he evidently had not much aptitude for a teacher's task.

In 1879 VAINIO was appointed lecturer of natural science at the lyceum of Jyväskylä, but he never entered upon his service in that little town, far from the capital. — His appointment as lecturer (»docent») at the university of Helsinki (since 1880) procured some modest gratifications for him, and gave him hopes of pecuniary grants which he also often received. He remained at the university, his modest demands for a decent standard of life made this possible.

To the great consternation of his compatriots VAINIO accepted an appointment as censor at the press service in Helsinki in 1891. The activity of this office had been intensified the previous year, in support of the proposed measures for the Russification of the country. More especially during and after the year 1899, when measures of Russification were intensified by the aid of the hated Board of Press Censorship, was VAINIO an outcast in Finland.

There is no excuse for this behaviour. But we may mention some circumstances which are, to a certain extent, mitigating. VAINIO lost the competition for the botanical professorship at the university of Helsinki at the beginning of the 1890'ies. He regarded himself as unjustly treated, and he was also of opinion that the university even in the future would not provide him an assured position, on account of his radical, Finnish nationalistic views. He did not feel attracted by the work of a school-master, as he was quite unable to maintain discipline. We must also remember that he had come on bad terms with all his surroundings on account of certain sides of his character; for he was extremely obstinate, and he was absolutely unwilling to withdraw from a step which he had once taken.

His countrymen amongst the botanists were fully aware that he suffered much in his mind from the work which he was obliged to do in his new appointment. All the time he hoped for a change which would enable him to devote

himself to the purely scientific work which he felt himself made for. During his leisure hours he assiduously continued his work at the microscope, and numerous lichenological papers from his hand saw the light even then. In spite of all, his warm devotion to his lichenological vocation led him to work some time during 1898 at the Herbarium Boissier near Genève, and during this journey abroad he also visited the museums of Paris and London.

After NYLANDER's death in 1899 his enormous lichen herbarium was transferred from Paris to Helsinki, and VAINIO most carefully arranged and filed it. The extent of this work can be estimated from the size of the herbarium, amounting to 51066 specimens.

VAINIO continued to fill his position as lecturer at the university until the first years of the new century, when scarcity of pupils obliged him to suspend his task as a teacher. As formerly his lessons as lecturer consisted in microscopical courses, largely conducted in his private home, and in cryptogamic excursions. He was not gifted as lecturer ex cathedra.

The liberation of Finland from Russia in 1917 swept away the censorship of the press. VAINIO found himself without appointment and without pension. Living on his very modest savings he resumed work on his dear lichenology, with a remarkable balance of mind. Obligated to reduce his private rooms to the smallest possible, he was unable to work at home, and he therefore transferred his microscope and a part of his library to the Botanical institution of the university. Every day, from morning to night, he was seen in the Botanical museum. Here he worked on the determination of exotic collections, and also on the »Lichenographia fennica». Some small contributions could be paid him from the annuum of the museum for work directly in the interest of the museum. Such a work was, for instance, the preparation of the »Continuatio» (Nos. 451—807) of NORRLIN et NYLANDER's »Lichenes Fenniae exsiccati», in the year 1921.

But matters at their worst are sure to mend. A new university was founded in Turku (Åbo), supported by self-

sacrificing contributions from large parts of the people. And for this university VAINIO's herbarium and library were bought in 1919 for an amount which ensured him a modest living for a couple of years. And still more. He was assured a regular, although very modest yearly salary for the work which he should do in order to bring his lichen herbarium to the level of a museum collection. The size of his herbarium was estimated at 22000 specimens, and in addition to that about 7000 specimens of Vascular plants — largely undetermined Brazilian plants —, a large collection of mosses and a small collection of fungi. A large part of his old plants were in need of revision with respect to synonyms, and the whole herbarium was much in need of new envelopes a. s. o. Accordingly he had to do a very large work. VAINIO began this work with great devotion. He had, at last, obtained the possibility to do work which he had regarded as the aim of his life for decades past.

The new Finnish university in Turku (Åbo) was opened in 1922, and at the same time VAINIO moved from Helsinki to that town with his »Herbarium VAINIO» which was then half-way in museum order. Here he became a sort of assistant professor extra ordinem and curator of the cryptogamic herbarium. He contributed to the students' training by systematical courses and cryptogamic excursions. In the Botanical museum he was occupied with critical research work in his own herbarium.

In Turku, where he now definitely took up his residence, he developed an assiduity in his lichenological studies which was quite exceptional for a man of his age. In spite of his 70 years he never had a day of rest — nor had he formerly had —, and his lamp was rarely put out before the small hours of the night. During these 7 years of work in Turku VAINIO also achieved remarkable results: The greater part of his large lichen herbarium was gone over, and at the same time it was increased by the great collections from numerous excursions near the city, and by foreign collections sent to him. The number of specimens was, in 1931, no less than

33072, to which should be added some exsiccati and several thousand specimens of unfiled material from the excursions of his last years. He wrote hundreds of pages for his *Lichenographia fennica*, he worked over the lichens of numerous exotic collections which had awaited their determination for years. And in addition he also managed to write down and publish the results of his Siberian travel in 1880.

Devoted to his science, retired and extremely unpretentious, VAINIO lived his life, consecrated to his lichenology. He lived in a little room in the university building, and he personally prepared a large part of his food which he bought at the market in his spacious excursion-basket. The greater part of the twenty-four hours he spent in his study where his library was also accommodated, or in the herbarium rooms which his eldest son, the artist, had decorated with oil paintings of prominent lichenologists.

But as soon as the term was over, and his holidays began, VAINIO always went from Turku to Helsinki. Here the members of his family lived, financial circumstances had made it impossible for them to accompany him to Turku. He always felt himself most at ease in the midst of his family. He was also attracted to Helsinki by the rich lichenological collections of its Botanical museum, i. a. ACHARIUS' and NYLANDER's herbaria which were indispensable to his work with the *Lichenographia*, and to his determinations of the exotic collections. — When he had arrived in Helsinki by the evening train he was always sure to be seen at his microscope in the museum's lichen herbarium the next morning. So great was his interest and so intense the disposition of his time.

VAINIO's health had nearly always been good, and generally it was also so during his last years. But his health failed one day, and after three weeks of severe nephralgy in the hospital of Turku he closed his eyes for ever on the 14th of May, 1929, at the advanced age of 76 years. According to his own desire he received his last resting-place in Turku where he had spent his happiest years of work. The funeral service was held in the old Cathedral of Turku, and his

remains were consigned to the earth in the new churchyard in the shadow of a pine, covered with lichens.

His surviving family are his wife, MARIE LOUISE SCOLASTIQUE, né PERROTTIN, whom he had married in Paris 1891, and four grown-up children, two sons and two daughters. In his domestic circle the departed had lived a very happy life.

The present writer did not make the acquaintance of VAINIO till his later years, especially during his stay in Turku. To the writer he appeared an extremely friendly and helpful, though reserved old man, and also a very eccentric personality, with many peculiar features, some of which greatly contributed to his difficult, or even tragical life. His strong points were, and had always been, his intense assiduity, his admirable enthusiasm, and his reverent affection for scientific work, and his exceptional power of concentration, in addition to his striking genius. »Interest and obstinacy are the most important things in life» he sometimes said. He often appeared exceptionally one-sided. But on nearer acquaintance one often had to admire his comprehensive interests and the vivacity of his intellect. He had reflected on the most different questions, scientific as well as general, and formed his own opinion on them, often quite an eccentric opinion. No arguments could shake his views.

His chief interest in general questions was the advancement of the Finnish language and the Finnish national culture. He followed with the warmest interest the struggle of the Pro-Finnish students, and at times he called to mind that he had eagerly taken part in the students' politics in the 1870'ies. He had then been one of the first to change his originally foreign family name for a Finnish one. In stead of the name LANG he took the name WAINIO which he later (from 1920) wrote VAINIO, according to the modern Finnish writing.

In his private life VAINIO was extremely unpretentious. His standard of life was at the minimum of a cultured man.

He was so unpretentious that he never so much as hinted at his great scientific merits. He never sought acknowledgement, and deplorably enough he but rarely received such. But he was heartily glad at the little which he got. He was deeply affected when the modest Zoological-botanical Society in Turku honoured him by the election as honorary member on his 75th birthday. He was profoundly impressed by the message that the Government had granted him a research pension, on the application some months previously of the Finnish University at Turku, and of the Societas pro Fauna et Flora Fennica. This message reached him on his death bed. The pension had been applied for in recognition of Doctor VAINIO's long, devoted research work, so rich in results. Unfortunately he did not live to draw a single penny of this modest reward for his great scientific merits.

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