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A List of Aphids from the Democratic People's Republic of Korea.

Part I. Adelgidae to Chaitophoridae (Homoptera)<sup>1</sup>

[With 1 map in the text]

Much of the aphids material studied was collected during the six weeks (September-October 1966) the author was in the Democratic People's Republic of Korea. Some samples of aphids were collected by the members of the staff of the Institute of Zoology of the Polish Academy of Sciences during field investigations carried out in September 1959 (B. PISARSKI and J. PRÓSZYŃSKI), in May-June 1965 (M. MROCZKOWSKI and A. RIEDEL) and in September 1970 (R. BIELAWSKI and M. MROCZKOWSKI), to whom I am indebted for making this material available to me for study.

All the field investigations are carried out within the framework of the co-operation of the Polish and the Korean Academies of Sciences. Thank are due to the Institute of Biology of the Korean Academy of Sciences in P'yŏngyang for giving facilities for these field investigations by kind hospitality and much assistance. Some members of the staff of this Institute facilitated the investigations in a variety of ways. Particular thanks are due to Mr. Yun Seng Rok and Mr. Ku Wan Son. Thanks are also due to Prof. Ri Chong O for help in the identification of the great part of the host plants, to Dr. D. Hille Ris Lambers (Bennekom), Dr. M. Inouye (Kuriyama), Dr. M. Miyazaki and Dr. Higuchi (Sapporo) and Dr. Ch. Tao (Taipei) for opinions on the identity of Korean aphids and copies of the necessary literature.

The aphid fauna of Korea is very little known. The first records of Korean aphids were published by TAKAHASHI (1924, 1933), OKAMOTO and TAKAHASHI

<sup>&</sup>lt;sup>1</sup> Results of the Korea Expeditions of the Institute of Zoology, Polish Academy of Sciences, Warszawa. Contribution No. 26.

(1927) and Saito (1931, 1933). Further records of some Korean aphids are given in the papers of Shinji (1941), Shiraki (1952) and Inouye (1953). Recently Paik (1965) published an account on the Korean Aphidoidea (exclusive Pemphigidae) known to him. All these papers are concerning mainly with the aphid fauna of the southern part of the Korean Peninsula and about the aphids of the northern part of this Peninsula no special studies or lists have been published.

In the present paper are listed only the members of the families Adelgidae, Hormaphididae, Pemphigidae, Greenideidae, Thelaxidae, Lachnidae and Chaitophoridae. The collected material of the Drepanosiphonidae is worked out by Dr. F. W. QUEDNAU (Quebec), and that of the Aphididae will be discussed in a second part of this paper. There are no members of the family Phylloxeridae in the collected material. All material collected is preserved in the collection of the Institute of Zoology of the Polish Academy of Sciences in Warszawa.

#### AN ANNOTATED LIST OF SPECIES

#### Adelgidae

### Adelges laricis VALL.

Prov. Hamgyŏng-pukto: in the river valley Poro-ch'ŏn, 20 km NW of Kyŏngsŏng, 4 VI 1965, apt. viv. fem. on the needles of *Larix* sp. Prov. Hamgyŏng-namdo: Yŏnpong-ri, distr. Hongwŏn, 8 VI 1965, apt. viv. fem. on the needles of *Larix* sp.

Numerous apterous specimens unseparable from the description of the "Progrediens-Mutter" of *Adelges laricis* var. *karamatsu* given by INOUYE (1953) are found. This form has so far been reported only from Japan, Sakhalin, and Korea.

#### Hormaphididae

## Tuberaphis coreanus TAKAH.

Prov. P'yŏngan-namdo: T'aesŏng, distr. Kangsŏ, 19 IX 1966, numerous apt. and al. viv. fem. on Viscum coloratum.

This very little known species was hitherto known only from one locality (Suwon) in the south part of the Korean Peninsula. A supplementary description of the so far undescribed alate will be given in another paper.

## Ceratovacuna nekoashi (SASAKI)

Prov. P'yŏngyang-si: Taesŏng-san, 22 IX 1966, apt. viv. fem. on Muhlenbergia japonica; Prov. Kaesŏng-si: at the waterfall Pakyŏng on the Ch'ŏnma-san, 27 IX 1966, apt. viv. fem. on Muhlenbergia japonica; Prov. Kangwŏn-do: Wŏnsan, 31 IX 1966, apt. viv. fem. on Chloris virgata.



Map 1. The Provinces and major found-places of aphids in the Democratic People's Republic of Korea.

This heteroecious species is known from Japan and the southern part of the Korean Peninsula. It can be characterised by short, 4-jointed antennae and the presence of numerous wax glands on the eighth abdominal tergite.

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#### Pemphigidae

## Colophina clematis (SHINJI)

Prov. Hamgyong-namdo: Myohyang-san, Hyangam-ri, distr. Hyang-san, 22 IX 1966, one sexupara on *Cornus* sp., incidentally (D. Hille Ris Lambers det.).

This little known aphid is bitherto known from Japan, Korea and Taiwan and can be recognised by the curious shape of the second tarsal segment and the very characteristic wax glands.

## Tetraneura nigriabdominalis (SASAKI)

Prov. Hamgyong-pukto: Onp'o-ri, distr. Kyongsong, 11 IX 1966, one apt. viv. fem. and some larvae on the roots of Setaria sp.

A common species of world-wide distribution, except Europe. A modern description is given recently by HILLE RIS LAMBERS (1970).

### Tetraneura yezoensis MATS.

Prov. P'yŏngyang-si: Yongak-san, 16 km SW of P'yŏngyang, 25 VIII 1966, apt. viv. fem. on the roots of Pannisetum alopecuroides.

Only known from Japan and Australia and new to the Korean fauna. Recently redescribed by HILLE RIS LAMBERS (1970).

## Paraprociphilus baicalensis (CHOLOD.)

Prov. Hamgyong-pukto: Onp'o-ri, distr. Kyongsong, 10 IX 1966, numerous apt. viv. fem. and larvae on the underside of the blades of Alnus fruticosa.

Widely distributed on the Asiatic mainland from Ural Mts. to Pacific, but hitherto not recorded from Korea.

#### Fushia rosae MATS.

Prov. Hamgyŏng-namdo: Myohyang-san, Sangwŏn-am, distr. Hyang-san, 23 IX 1966, many al. viv. fem. from galls on *Rhus javanica* (D. Hille Ris Lambers det.).

The known distribution of this species covers Taiwan, China, Korea, and Japan.

## Schlechtendalia sp.

Prov. Kaesŏng-si: at the waterfall Pakyŏng on the Ch'ŏnma-san, 27 VIII 1966, numerous apt. viv. fem. and larvae from large, very characteristic galls on Rhus javanica.

No alate morphs are found and therefore the aphids can not be determined to species. Tao (1970) recorded two species from China under the generic name *Melaphis*: *M. peitan* Tsai et Tang from egg-shaped galls, and *M. chinensis* 

BELL from galls with horn-like processes. Both galls are figured in the Chinese paper of TAO and from these figures it is clear that the Korean species makes galls different from the Chinese species.

#### Greenideidae

### Cervaphis quercus TAKAH.

Prov. P'yŏngyang-si: P'yŏngyang, Moran-bong, 23 VIII 1966, one al. and numerous apt. viv. fem. on the blades of Castanea crenata; Mankyŏng-bong, 12 km N of P'yŏngyang, 28 VIII 1966, some apt. viv. fem. on the blades of Castanea crenata.

C. quercus lives both on Quercus and Castanea and has been reported from Japan, Korea, China, and Taiwan.

### Greenidea kuwanai (PERGANDE)

Prov. Kaesŏng-si: at the waterfall Pakyŏng on the Ch'ŏnma-san, 27 VIII 1966, one larva on Quercus mongolicus; Prov. P'yŏngyang-si: P'yŏngyang, Moran-bong, 23 VIII 1966, some apt. viv. fem. and larvae on the young shots of Castanea crenata, Mankyŏung-bong, 12 km N of P'yŏngyang, 28 VIII 1966, many apt. and al. viv. fem. on Castanea crenata, Taesŏng-san, 22 VIII 1966, some apt. and al. viv. fem. on Castanea crenata and Quercus mongolicus; Prov. Hamhung-si: Hamhung, 13 IX 1966, some apt. viv. fem. on Castanea crenata; Prov. Kangwŏn-do: Wŏnsan, 2 IX 1966, apt. viv. fem. on Quercus mongolicus.

G. kuwanai lives on young shoots and on the blades of the host plants and seems to be very widely distributed. It known range covers Taiwan, China, Korea, Japan, and the East Territory of the U.S.S.R.

#### Thelaxidae

## Anoecia ?fulviabdominalis (SASAKI)

Prov. Hamgyŏng-namdo: Myohyang-san, Hyangam-ri, distr. Hyangsan, 22 IX 1966, some sexuparae on the underside of the blades of *Cornus* sp.

The Korean specimens have secondary rhinaria on the antennal joints 3-6; on 3rd joint 10-16, on 4th joint 3-4, on 5th joint 1-3 and on the 6th joint 0-1. This corresponds well with the characters of the European Anoecia corni (F.), but this species has a full set of the marginal tubercles, which are always lacking on the 5 and 6 tergite in the Korean specimens. This character has the European A. vagans Koch, which may be differentiated by the very short dorsal hairs. There are still some doubts about the identity of the Korean specimens untill the grass-inhabiting morphs were examined.

#### Lachnidae

## Lachnus (Schizodryobius) chosoni Szel.

Prov. P'yŏngan-pukto: Myohyang-san, 5 VIII 1959, there apt. viv. fem. and some larvae on the twigs of Quercus sp.

A description of this undescribed species will be given in another paper. The species name *chosoni* (= from Choson) is derived from the name of the ancient state Choson (5-4th century B.C.)

### Lachnus (Lachnus) japonicus MATS.

Prov. Hamgyŏng-pukto: Onp'o-ri, distr. Kyŏngsŏng, 22 VIII 1959, one al. viv. fem. on Quercus sp.; 10 IX 1966, 2 al. and 7 apt. viv. fem. on Quercus sp.; Prov. P'yŏngan-pukto: Myohyang-san, Sangwŏn-am, distr. Hyangsan, 24 IX 1966, one al. and 9 apt. viv. fem. on Quercus aliena; 24 IX 1966, 7 apt. viv. fem. on Castanea crenata; Prov. Hamhŭng-si: Hyngpong-ri, distr. Hamju, 12 VI 1965, some larvae on Fagus sp.; Prov. P'yŏngan-namdo: T'aesŏng distr. Kangsŏ, 26 V 1965, some apt. viv. fem. and larvae on Quercus sp.; Prov. P'yŏngyang-si: P'yŏngyang, 26 VII 1959, two apt. viv. fem. on Quercus sp., Yongak-san, 16 km SW of P'yŏngyang, 25 VIII 1966, many al. and apt. viv. fem. on Quercus dentata; Prov. Kangwŏn-do: Wŏnsan, 2 IX 1966, two apt. viv. fem. on Castanea crenata, Ch'ŏnsam-ri, 10 km of Wŏnsan, 3 IX 1966, one apt. viv. fem. on Quercus sp., Kymgang-san, 28 VIII 1959, one apt. viv. fem. on Quercus sp.

A very common species, living on the branches of *Quercus*, *Castanea* and *Fagus* spp., and known from China, Korea, Japan, and the East Territory of the U.S.S.R. Often misidentified with *Lachnus tropicalis* (v.d. Goot), a more southern species, which is known hitherto only from Viet-Nam and Indonesia.

### Tuberculatus salignus (GMELIN)

Prov. Hamgyŏng-pukto: Onp'o-ri, distr. Kyŏngsŏng, 11 IX 1966, some larvae taken from Salix sp.; Prov. Hamhŭng-si: Hamhŭng, 13 IX 1966, one apt. viv. fem. and larvae on Salix babylonica; Prov. Kangwŏn-do: Wŏnsan, 2 IX 1966, many apt. viv. fem. on Salix hallaisanensis.

A cosmopolitian, and probably anholocyclic species. The Korean specimens are smaller than the European and distinctly pulverulent. The living specimens can be easily mistaken for a *Pterocomma*.

## Stomaphis asiphon Szel.

Prov. P'yŏngan-pukto: Myohyang-san, in the Manp'ok-tong Valley, distr. Hyangsan, 19 VI 1965, some apt. viv. fem. and larvae from the roots of an undetermined tree.

A description of this undescribed species will be given in another paper.

## Cinara formosana (TAKAH.)

Prov. Ch'ŏngjin-si: Musan-ryŏng, ca. 60 km N of Ch'ŏngjin, 2 VI 1965, 4 apt. viv. fem. on *Pinus* sp.; Prov. Hamhung-si: Hyngpong-ri, distr. Hamju, 12 VI 1965, two apt. viv. fem. on *Pinus* sp., Tŏksan-ri, 12 km of Hamhung, 14 IX 1966, two apt. viv. fem. on *Pinus* sp.; Prov. P'yŏngan-namdo: T'aesŏng, distr. Kangsŏ, 19 IX 1966, 6 apt. viv. fem. on *Pinus* sp.; Prov. Kangwŏn-do: Wŏnsan, 2 IX 1966, 8 apt. viv. fem. on *Pinus densiflora*.

A very large aphid, which feeds on the young shots of *Pinus* spp. and known so far from Taiwan, China and Japan. It is apparently new to the Korean

fauna. A member of the taxonomically very difficult group of Asiatic species resembling C. pinea MORDV.

### Cinara fresai BLANCH.

Prov. P'yŏngan-pukto: Myohyang-san, Hyangam-ri, distr. Hyangsan, 24 IX 1966, many apt. viv. fem. on the bark of the branches of *Juniperus utilis*, visited by ants.

A nearly cosmopolitan species, known so far from North and South America, Europe, Australia and New Zealand, but hitherto not recorded from Asia and new to the Korean fauna.

### Cinara laricicola (MATS.)

Prov. Hamgyŏng-pukto: Kyŏngsŏng, 11 IX 1966, some apt. viv. fem. on Larix sp., Samdae-jik, distr. Kyŏngsŏng, 11 IX 1966, some apt. viv. fem. on Larix sp.; Prov. P'yŏngan-punkto: Myohyang-san, Sangwŏn-am, distr. Hyangsan, 23 IX 1966, many apt. viv. fem. on Larix kaempferi, Hyangam-ri, distr. Hyangsan, 24 IX 1966, some apt. viv. fem. on Larix kaempferi; Prov. Hamgyŏng-namdo: Oro, ca. 19 km NW of Hamhŭng, 15 IX 1966, some apt. viv. fem. on Larix sp.; Prov. Hamhŭng-si: Tŏksan-ri, ca. 12 km N of Hamhŭng, 14 IX 1966, some apt. viv. fem. on Larix sp.

Widely distributed in Korea and Japan, this aphid feed on the young twigs of *Larix* spp. and is very common in northern part of the Korean Peninsula. It is very nearly related to *Cinara boerneri* H. R. L. from Europe.

## Cinara ?longipennis (MATS.)

Prov. P'yŏngan-pukto: Myohyang-san, Hyangam-ri, distr. Hyangsan, 22 IX 1966, some larvae on Abies halophylla, Sangwŏn-am, distr. Hyangsan, 24 IX 1966, some larvae on A. halophylla.

Both samples were taken from the bark of old branches and were visited by ants. C. longipennis, to which species I assign my material, is hitherto only known from Japan and Korea.

#### Cinara matsumurana H.R.L.

Prov. P'yŏngan-pukto: Myohyang-san, Hyangam-ri, distr. Hyangsan, 22 IX 1966, numerous apt. viv. fem. on Abies halophylla, Sangwŏn-am, distr. Hyang-san, 24 IX 1966, many apt. viv. fem. on Abies halophylla.

The aphids are found on young branches between the needles, and are visited by ants. They are only remotely related to the European *C. pectinatae* and differs from this species distinctly by the much shorter first segment of hind tarsus, the black legs and by the lost of black scleroites on the bases of dorsal hairs, as well by some other characters. Börner, who has asigned the European species to the genus *Todoloachnus Mats.*, of which *C. matsumurana* H.R.L. is the type-species, has probably never seen the last species.

### Cinara orientalis (TAKAH.) sensu INOUYE

Prov. Kaesŏng-si: near the Kongmin's tomb, 26 VIII 1966, many apt. viv. fem. on the bark of old branches of *Pinus densiflora*, visited by ants.

The species is known from Japan, Korea, China nad Taiwan. It seems to be a more southern species and is very rare in the northern part of the Korean Peninsula. It was only once found in the very south of the Democratic People's Republic of Korea. C. orientalis was described from Taiwan from an unknown species of Pinus, and as Pinus densiflora are not native in Taiwan, there are some doubts as to the identity of the Korean specimens.

## Cinara piniformosana (TAKAH.)

Prov. Hamgyŏng-pukto: Musan-ryŏng, ca. 60 km N of Ch'ŏngjin, 2 VI 1965, one apt. viv. fem. on *Pinus* sp.; Prov. P'yŏngan-pukto: Myohyang-san, Hyangam-ri, distr. Hyangsan, 16 V 1965, some apt. viv. fem. on *Pinus* sp., Sangwŏn-am, distr. Hyangsan, 24 IX 1966, some apt. viv. fem. on *Pinus densiflora*; Prov. Hamgyŏng-namdo: Oro, ca 19 km of Hamhŭng, 15 IX 1966, a few apt. viv. fem. on *Pinus* sp. (\*\*ldensiflora\*); Prov. Hamhŭng-si: Hŭngpong-ri, distr. Hamju, 12 VI 1965, one al. and 3 apt. viv. fem. on *Pinus* sp., Tŏksan-ri, 12 km N of Hamhŭng, 14 XI 1966, a few apt. viv. fem. on *Pinus* sp.; Prov. P'yŏngyang-si: Taesŏng-san, 22 VIII 1966, one apt. viv. fem. on *Pinus densiflora*; Prov. Kangwŏn-do: Ch'ŏnsam-ri, 10 km S of Wŏnsan, 3 IX 1966, a few apt. viv. fem. on *Pinus densiflora*.

This species was often confused with Cinara pinea (MORDV.) and all records of C. pinea from East Asia refer practically to C. piniformosana which is very common and widely distributed in East Asia. C. piniformosana feeds solitary or in small colonies on the young branches and is visited by ants.

## Cinara todocola (INOUYE)

Prov. P'yŏngan-pukto: Myohyang-san, Hyangam-ri, distr. Hyangsan, 22 IX 1966, a few apt. viv. fem. on Abies halophylla; Sangwŏn-am, distr. Hyangsan, 24 IX 1966, many apt. viv. on Abies halophylla.

This very destructive aphid was hitherto known only from Japan (Hokkaido, Honshu) and the U.S.S.R. (Sakhalin), and is new to the fauna of Korea. The aphids feeds in large colonies on the bark of young twigs under shelters of earth-clusters constructed by ants. The living aphids are dark green with a dark pattern, the young larvae pale green, the older ones brownish green.

## Cinara tujafilina (DEL GU.)

Prov. Hamhung-si: Hamhung, 13 IX 1966, three al. and 6 apt. viv. fem. on *Biota orientalis*; Prov. Hwanghae-pukto: Sariwon, 25 V 1965, two al. and 8 apt. viv. fem. on *Biota orientalis*.

A cosmopolitan species, widely distributed in the warmer parts of the world.

#### Cinara watanabei INOUYE

Prov. P'yŏngan-pukto: Myohyan-san, Hyangam-ri, distr. Hyangsan, 22 and 24 IX 1966, numerous apt. viv. fem., ovip. fem. and al. males on the trunk and older branches of *Pinus koraiensis*, visited by ants; Prov. Hamhŭng-si: Hamhŭng, 13 IX 1966, two al. and many apt. viv. fem. on the branches of a young tree of *Pinus koraiensis*.

C. watanabei was recently described from Japan and is new to the fauna of Korea. It seems that this species constitute a link between the European C. cembrae and the Asiatic species-complex with a long and very hairy last rostral segment.

## Schizolachnus orientalis (TAKAH.)

Prov. Hamgyŏng-namdo: Oro, ca 19 km N of Hamhŭng, 15 IX 1966, many apt. viv. fem. on *Pinus densiflora*; Prov. Hamhŭng-si: Hamhŭng, 13 IX 1966, a few apt. viv. on *P. densiflora*; Prov. Hwanghae-pukto: Sariwŏn, 25 V 1965, many al. and apt. viv fem. on *Pinus* sp.

The aphids are feeding on the needles of *Pinus* spp., and are so far know from Taiwan, China and Japan, but not from Korea. S. orientalis is very nearly related to the European S. pineti (F.), and differs from it only by the shorter hind tarsus and longer body hairs.

## Eulachnus pumilae INOUYE

Prov. Hamhung, 13 IX 1966, many apt. viv. fem. on Pinus koraiensis.

This needle-feeding aphid was hitherto known only from Japan and is new to the Korean fauna. INOUYE (1970) has made recently *E. cembrae* Börn. a synonym of this species but this is not correct.

#### Chaitophoridae

## Periphyllus allogenes Szel.

Prov. Kaesŏng-si: Ch'ŏnma-san, at the waterfall Pakyŏn, 27 VIII 1966, a few apt. viv. fem. on the leaf-petioles of Acer (negundo or mono?), visited by ants.

This very curious species will be described in an another paper.

## Periphyllus ginnalae PAIK

Prov. P'yŏngan-pukto: Myohyan-san, Hyangam-ri, distr. Hyangsan, 26 VI 1965, many apt. viv. fem. on Acer sp. (?ginnala) visited by ants; Prov. Hamgyŏng-namdo: Yŏng-pong-ri, distr. Hongwŏn, 8 VI 1965, two al. and numerous apt. viv. fem. on Acer sp.; Prov. P'yŏngan-namdo: Jamo-ri, distr. Kujang, 27 V 1965, many apt. viv fem. on Acer sp.; Sŏkam-Chŏsuji, distr. Sunan, 21 V 1965, 5 al. viv. fem. on Acer ginnala;, Prov. Hamhung-si: Tŏk-san-ri, 12 km north of Hamhung, 14 IX 1966, many apt. viv. fem. on the bark of young branches of Acer ginnala visited by ants.

Recently described from the southern part of the Korean Peninsula this species is very common in the northern part. Besides the alate and apterous http://rcin.org.pl

females of the 2nd generation, described by PAIK, also the very curious autumnal apterous viviparous females are found. The description of these hitherto unknown morph will be given in another paper.

## Periphyllus ?viridis (TAKAH.)

Prov. Hamgyŏng-pukto: Onp'o-ri, distr. Kyŏngsŏng, 10 IX 1966, many apt. viv. fem. on the underside of leaves of *Acer mono*, visited by ants; Prov. P'yŏngan-pukto: Kyohyan-san, Hyangam-ri, distr. Hyangsan, 24 IX 1966, many apt. viv. fem. from the underside of the leaves of *Acer mono*, visited by ants.

Only the autumnal apterae, which were very unlike the spring morphs, are found and there are some doubt as to their identity. But because *P. viridis* is the only East Asiatic species from *Acer mono* with a long processus terminalis and has in spring colourless legs, the collected specimens may be the apterae developing from aestivating larvae in autumn.

## Chaitophorus populeti (PANZER)

Prov. Kangwon-do: Wonsan, 31 VIII 1966, one al. and some apt. viv. fem. on young twigs of *Populus Davidiana* (= *P. tremula* var. *Davidiana*); 2 IX 1966, a few apt. viv. fem. on the leaf-petioles of *Populus Davidiana*.

A common palaearctic species widely distributed throughout Europe and Asia. The Korean specimens differ in no way from the European ones.

## Chaitophorus saliapterus Shinji

Prov. Hamgyong-pukto: Onp'o-ri, distr. Kyongsong, 11 IX 1966, numerous apt. viv. fem. on the underside of the leaves of Salix integra, visited by ants.

Ch. saliapterus was hitherto known only from Japan and is new to the Asiatic Mainland and the Korean fauna.

## Chaitophorus saliniger Shinji

Prov. Hamgyŏng-pukto: Onp'o-ri, distr. Kyŏngsŏng, 10 IX 1966, many apt. viv. fem. on the underside of leaves of Salix sp., attended by ants; Prov. Hamhung-si: Hamhung, 13 IX 1966, numerous apt. viv. fem. on the young branches, leaf-petioles and the leaves of Salix babylonica, visited by ants; Prov. P'yŏngan-namdo: Sŏkam-Chŏsuji, distr. Sunan, 21 V 1965, a few apt. viv. fem. on Salix sp., Jamo-ri, distr. Sunch'ŏn, 27 V 1965, numerous apt. viv. fem. on Salix sp.; Prov. P'yŏngyang-si: Taesŏng-san, 22 VIII 1966, numerous apt. viv. fem. on the leaves of Salix babylonica; Prov. Hwanghae-pukto: Sariwŏn, 25 V 1965, a few apt. viv. fem. on Salix sp.; Prov. Kaesŏng-si: Ch'ŏnma-san, at the waterfall Pakyŏng, 27 VIII 1966, many apt. viv. fem. on the leaf-petioles and the leaves of Salix sp.

A very common species, better known under the name Chaitophorus chinensis Takah. Distributed over the whole East Asia from Taiwan to Japan but so far not recordet from Korea.

#### Chaitophorus variegatus SZEL.

Prov. Hamgyŏng-pukto: Onp'o-ri, distr, Kyŏngsŏng, 11 IX 1966, many apt. viv. fem. on the underside of the leaves of *Populus koreana*.

A description of this new species will be given in another paper.

Instytut Zoologii PAN Warszawa, ul. Wilcza 64

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STRESZCZENIE

[Tytuł: Wykaz mszyc z Koreańskiej Republiki Ludowo-Demokratycznej. Część I. Adelgidae do Chaitophoridae (Homoptera)]

Praca zawiera wykaz 35 gatunków mszyc zebranych przez autora i pracowników Instytutu Zoologii w Koreańskiej Republice Ludowo-Demokratycznej w latach 1959–1970, z których 15 nie było dotąd znanych z Półwyspu Koreańskiego, a 4 — opisane w innej pracy — nie były znane nauce.

РЕЗЮМЕ

II, Forth, 9: 21-101,

[Заглавие: Список тлей из Корейской Народно-Демократической Республики.

Часть I. От Adelgidae до Chaitophoridae (Homoptera)]

Работа солержит список 35 видов, собранных авто

Работа содержит список 35 видов, собранных автором и другими сотрудниками Зоологического института ПАН в Корейской Народно-Демократической Республике в 1959—1970 гг. Среди перечисленных видов 15 не были известны с полуострова Корея, а 4 вида описаны впервые.

are found and there are some datas and thair identity. But became P. verigio

with descriptions of a new subgraph and new species, Boll, Zool, say, Rachips, Sor.

Państwowe Wydawnictwo Naukowe — Warszawa 1974
Nakład 965+90 egz. Ark. wyd. 1; druk. ¾. Papier druk. sat. kl. III, 80 g, B1. Cena zł 10, —
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