BOTANICAL LITERATURE OF AFGHANISTAN

S.-W. BRECKLE,* W. FREY** AND I. C. HEDGE

INTRODUCTION

The botanical literature of Afghanistan was very sparse indeed until quite recently. Boissier, for example, who included the country within his Flora Orientalis (1867-1888), had only the small pioneer collections of Griffith (c. 1839) and Aitchison (c. 1880) at his disposal. Afghanistan was then and until about forty years ago, a very difficult country to travel in and only since it has been opened up has the richness and interest of its flora been fully realised. In the 1930's Koelz made important collections and since then, particularly since the end of the last war, more and more collectors have been drawn to Afghanistan. As a result, the bulk of botanical references date from about 1950 onwards.

Although the most important collections of Afghan plants are to be found in European herbaria, particularly in the Natural History Museum in Vienna, a start has been made at the Botany Department of Kabul University in association with the University of Bonn to build up a herbarium of native plants. Although at present fairly small, the herbarium does contain many of the important specimens collected by H. F. Neubauer between 1949 and 1951 and from 1962 until 1965. It is also being added to every year by the German botanists of Bonn University affiliated with Kabul University.

It is therefore an appropriate time when so much interest is being taken in the flora of the country to provide a useful list of references.

The following bibliography attempts to give a reasonably comprehensive coverage of works dealing with the phanerogams, cryptogams and the vegetation of Afghanistan. Although primarily concerned with native plants, there are references to cultivated plants and to the agriculture of the country.† There are also references to works dealing with geography, climate, ecology and palaeontology.

A separate section lists some of the most important botanical references to adjacent countries or areas; another section gives a brief list of useful maps of Afghanistan.

Many colleagues—too many to mention individually—have contributed towards this bibliography. We wish to record our gratitude to all of them.

I. REFERENCES TO AFGHANISTAN

AGACHANJANC, O. E. (1958). Botanical-geographical survey of Afghanistan. *Izv. Akad. Nauk tadzhik. SSR; Otd. est Nauk* 1, 25. (in Russian).

——(1960). Notes on botanical geographical districts of Tadzhikistan and

*previously at Kabul University, now at Bonn.

**Tubingen.

† The bibliography of Pickett (see below) dealing with agriculture in Afghanistan is very comprehensive and includes many references to allied subjects.

NE Afghanistan. *Izv. Akad. Nauk tadzhik. SSR; Otd. s.-kh. biolog.* 1, 2. (in Russian).

——(1961). Vegetation of NE Afghanistan. *Sb. tr. tadzhik. fil. geogr. obsch. SSR* 2. (in Russian).

——(1964). Botanical-geographical observations in Afghanistan. *Bot. Zhurn.* 49: 150–155. (in Russian).

AITCHISON, J. E. T. (1879). The vegetation of Kurram and Hariab valleys. *Ind. For.* 5: 179–188.

——(1881–82). On the Flora of Kurram valley. *Journ. Linn. Soc. Bot.* 18: 1–113; 19: 139–200.

——(1887). Some plants of Afghanistan and their medicinal products. *Pharmac. Journ.* 3 ser. 17: 465–468.

——(1888). The botany of the Afghan delimitation commission. *Trans. Linn. Soc. Bot.* 2 ser. 3: 1–139.

——(1889). A summary of the botanical features of the country traversed by the Afghan delimitation commission during 1884–1885. *Trans. Bot. Soc. Edinb.* 17: 421–434.

——(1890). Notes on the products of W Afghanistan and NE Persia. *Trans. Bot. Soc. Edinb.* 18: 1–228.

AKHTAR, S. A. (1938). A new species of Delphinium from Afghanistan. *Kew Bull.* 1938: 86.

AKRAM, S. (1967). Blütenpflanzen im Hindukusch, in Frey, W., *Zwischen Munjan und Bashgal* 47–50, Göppingen.

AMSEL, H. G. (1957). Die Deutsche Afghanistan–Expedition 1956 der Landessammlung für Naturkunde in Karlsruhe. *Beitr. naturk. Forsch. SüdwDtl.* 16: 1–28.

Anon. (1937). Deutsche im Hindukusch. *Deutsche Forschung.*, N.F. 1: 351.

——(1946). Afghanistan as a source of crude drugs and essential oils. Commerce Dept. Washington. *Industr. Ref. Serv.* 4, 2: 133–134.

——(1956). Le bois à travers le monde. Afghanistan. *Rev. int. du bois* 23: 139–140.

——(1968). *Bibliographie der Afghanistan-Literatur* 1945–67. Teil I: Literatur in europäischen Sprachen. 1–189. Hamburg.

BABCOCK, E. B. (1952). Supplementary notes on Crepis VI: some species of Iran and Afghanistan. *Univ. California Publications in Botany* 26: 213–222.

BARULINA, E. I. (1928). Lentils of Afghanistan. *Bull appl. Bot., Genetics & Plant Breeding* 19, 2: 1–48. (in Russian).

BENDA, L. (1964). Die Jura-Flora aus der Saighan-Serie Nord-Afghanistans. *Beih. Geol. Jahrb.* 70: 99–152.

BESANGER-BEAUQUESNE, L. & CHOSSON, J. (1957). Sur la gomme "d'asafoetida": Iran, Afghanistan. *Compt. rend. Acad. Sc. Paris* 245: 360–361.

BHARUCHA, F. R. (1952). *Plant ecological research on the arid and semi-arid regions of Afghanistan, India & Pakistan.* Bombay.

——(1955). Afghanistan, India and Pakistan: Plant ecology. UNESCO. *Arid zone research* 6: 19–39.

BIZOT, M. (1962). Quelques mousses d'Afghanistan. *Rev. bryol. lichén.* 31: 90.

BOISSIER, E. (1842–1854). *Diagnoses plantarum orientalium novarum.* Ser. I parts 1–13, Genève.

——(1854–1859). op. cit. Ser. II parts 1–6, Genève.

——(1867–1888). *Flora Orientalis*, vols. 1–5 and suppl. Genève.

BOR, N. L. & FISCHER, C. E. C. (1939). A new genus and species of Caryophyllaceae. *Ind. For.* 65: 611–613.

BOREAU, E. (1950). Note préliminaire sur des vegétaux du lias du plateau iranien. *Compt. rend. somm. Seanc. Soc. geol. Fr.* 1–2: 22–23.

BORNMÜLLER, J. (1934). Aus der Flora Afghanistans. *Bot. Jahrb.* 66: 216–248.

BOTSCHANTZEV, V. P. (1957). Review of Rechinger's Symbolae Afghanicae—Compositae. *Bot. Zhurn.* 42: 773–778. (in Russian).

——(1961). Notulae de Nomenclatura. *Not. Syst. Leningrad* 21: 11–12.

——(1964). Noch einmal über die Gattungen Winklera Rgl. und Uranodactylus Gilli. *Feddes Rep.* 69: 67–68.

BRECKLE, S.-W. (1967). Fossile Pflanzenreste am Latahbandpass in Afghanistan. *Science (Kabul)* 4: 16–21.

——MADEL, G. & SCHNEIDER, P. (1969). Biologische Wakhan-Exkursion Sommer 1968. *l.c.* (in press).

——& RASOUL, M. (1969). Hybriden bei zentral-asiatischen Anemone n. *Naturwissenschaften* (in press).

BRETZL, H. (1903). *Botanische Forschungen des Alexanderzuges.* 1–412. Leipzig.

CHRTKOVÁ-ŽERTOVÁ, A. (1967). The variability of critical species of Lotus L. in Iran and the neighbouring countries I: the circle of L. corniculatus L. and L. gebelia Vent. *Folia Geobot. Phytotax.* 2: 283–310.

CITA, M. B. & RUSCELLI, M. A. (1959). Cretaceous microfacies from Western Pakistan and Afghanistan. *Riv. ital. Paleont. Stratigr.* 65: 231–244.

DADA, H. & PICKETT, L. (1969). 1968 Supplement to the bibliography of materials dealing with agriculture in Afghanistan. 1–33. *Gen. Pub. no.* 1 *Fac. of Agric. Kabul University.*

DÜCKELMANN, R. (1951). Die Holzgewächse und Waldformen von Afghanistan nach ihrer klimatischen Bedingtheit und geographischen Verteilung. *Generalbericht d. Abt. Forstwesen. Kgl. Dpt. für Landwirtschaft.*

FEDTSCHENKO, B. A. (1938). Materials for a Flora of Afghanistan. *Sb. rabot. posv. pam. akad. A.V. Fomin izd. Akad. Nauk USSR Kiev* 26–37. (in Russian).

FISCHER, L. (1968). Afghanistan. 180 p. *Medizinische Länderkunde* 2. Berlin.

FOGED, N. (1959). Diatoms from Afghanistan. *Biol. Skr.* 11: 1–95.

FRANCHET, A. (1896). Note sur une collection de Plantes rapportées du Pamir en 1894 par M. E. de Poncins. *Bull. Mus. Paris* 2: 342–347.

FREISLEBEN, R. (1940). Die Gersten und Weizen der Deutschen Hindukusch—Expedition 1935. *Angewandte Bot.* 22: 105–132.

——(1940). Die Gersten der Deutschen Hindukusch–Expedition 1935. *Kühn-Arch.* 54: 295–368.

——(1940). Die phylogenetische Bedeutung asiatischer Gersten. *Züchter* 12: 257–272.

——(1941). Anschauungen über die Abstammung der Kulturgersten auf Grund des Materials der Deutschen Hindukusch–Expedition 1935. *Forschung und Fortschritte* 17: 140–142.

FREY, W. (1967–68). *Zwischen Munjan und Bashgal I,* 3–56; *II,* 3–38. Göppingen.

——(1967). Zur Vegetation des Zentralen Afghanischen Hindukusch. *Op. cit.* I: 17–46, 51–56.

——(1968). Beobachtungen in Zentralen Hindukusch. *Op. cit.* I: 17–46. 51–56.

——(1969). Beiträge zur Moosflora Afghanistans I: Bartramiaceae. *Nova Hedwigia* (in press).

FROEHLICH, J. (1955). Die von Dr A. Gilli in den Jahren 1949–1951 in Zentral-Ost und Nordost-Afghanistan gesammelten Bryophyten. *Mitt. Thür. Bot. Ges.* 1, 2/3: 59–70.

——(1959). Bryophyten aus Vorderasien. *Ann. Nathist. Hofmus. Wien* 63: 31–32.

——(1964). Bryophyten aus Afghanistan und Nordwest-Pakistan. *l.c.* 67: 149–158.

FURSE, P. (1965–66). Iran & Afghanistan 1964. *Journ. Roy. Hort. Soc.* 90: 462–475, 504–509; 91: 18–26.

——(1967). Colchicum and Merendera in Turkey, Iran and Afghanistan. *The Lily Year Book, London* 1968: 106–115.

——& P. (1968). Afghanistan 1966. *Journ. Roy. Hort. Soc.* 93: 20–30, 92–97, 114–124.

GATTANI, M. L. (1959). Control of some important plant diseases in Afghanistan. *F.A.O. Plant Protection Bull.* 7: 64–68.

——& SODAK, A. (1962). Plant diseases of economic importance in Afghanistan. *l.c.* 10: 30–35.

GILBERT, O. L. (1968). A general account of high altitude vegetation in the Samir Valley. *Environmental research in the Samir Valley of the Hindu Kush.* 6.1–6.4. Ed. A. James. Newcastle.

——(1968). Lichen ecology in the Hindu Kush. *l.c.* 6.5–6.7.

GILLI, A. (1954). Neue Liliaceen und Iridaceen aus Afghanistan. *Feddes Rep.* 56: 143–149.

——(1955). Neue Ranunculaceae und Papaveraceae aus Afghanistan. *l.c.* 57: 94–101.

——(1955). Neue Cruciferen aus Afghanistan und Iran. *l.c.* 57: 218–231.

——(1956). Neue Caryophyllaceae aus Afghanistan. *l.c.* 59: 162–178.

——(1956). Neue Leguminosen und Rosaceen aus Afghanistan. *l.c.* 59: 190–192.

——(1958). Beiträge zur Flora Afghanistans I: Pteridophyta und Gymnospermae. *l.c.* 61: 86–92.

——(1959). Neue Primulaceen und Chenopodiaceen aus Afghanistan. *l.c.* 62: 22–26.

——(1959). Neue Umbelliferen aus Afghanistan. *l.c.* 61: 193–209.

——(1959). Eine neue Cruciferengattung aus Afghanistan. *l.c.* 61: 209–211.

——(1960). Neue Leguminosen, Scrophulariaceen, Orobanchaceen und Gentianaceen aus Afghanistan. *l.c.* 63: 321–328.

——(1962). Beiträge zur Flora Afghanistans II: Monocotyledones. *l.c.* 64: 204–231.

——(1962). Umbenennung der Gattung Winklera in Uranodactylus. *l.c.* 66: 192–194.

——(1963). Neue Compositen und Campanulaceen aus Afghanistan. *l.c.* 68: 87–100.

——(1963). Beiträge zur Flora Afghanistans III: Salicales, Fagales, Urticales, Polygonales, Centrospermae. *l.c.* 68: 239–259.

——(1964). Beiträge zur Flora Afghanistans IV: Ranales und Rhoeadales. *l.c.* 69: 155–175.

——(1964). Neue Arten aus Afghanistan (Nachtrag). *l.c.* 69: 175.

——(1966). Beiträge zur Flora Afghanistans V: Rosales, Geraniales. *l.c.* 72: 49–68.
——(1969). Afghanische Pflanzengesellschaften. *Vegetatio* 16: 307–375.
GOVOROV, L. I. (1928). The peas of Afghanistan. *Bull. appl. Bot., Genetics & Plant Breeding*, 19, 2: 497–522. (in Russian).
GRIFFITH, W. (1847). *Journals of travels in Assam, Burma, Bootan, Afghanistan etc.* 1–529. Calcutta.
——(1848). *Itinerary notes on plants collected in the Khasyah and Bootan mountains* 1837–38, *in Afghanistan* 1839–41. 1–435. Calcutta.
HAASE-BESSELL, G. (1939). Bericht über die Rosen. Ergebnisse der Deutschen Hindukusch-Expedition II. *Die Gartenbauwissensch.* 13: 441–484.
HAECKEL, I. & TROLL, W. (1938). Botanische Ergebnisse der Deutschen Hindukusch-Expedition 1935. *Feddes. Rep. Beih.* 108: 1–72.
HARRISON, S. G. (1952). Edible pine kernels; Afghanistan and Baluchistan. *Kew Bull.* 1951: 372–373.
HAYON, J. C., PELT, J.-M. & YOUNOS, M. Ch. (1968). Les formations végétales de la basse vallée du Kounar (Afghanistan oriental). *Compt. rend. Acad. Sc. Paris* 266, ser. D: 2086–2089.
——(1969). Les formations végétales de la moyenne vallée du Kaboul et des massifs montagneux du Nuristan. *Vegetatio* (in press)
HEDGE, I. C. (1960). Two remarkable new Salvias from Afghanistan. *Notes R.B.G. Edinb.* 23: 163–165.
——(1961). Salvia glutinosa L. and S. nubicola Sweet: two previously confused species. *l.c.* 23: 205–208.
——(1966). Studies in the flora of Afghanistan III: an account of Salvia. *l.c.* 26: 407–425.
——(1967). Studies in the flora of Afghanistan VI: Labiatae, A–Lal. *l.c.* 27: 149–173.
——(1968). Studies in the flora of Afghanistan VIII: Labiatae, conclusions and key to genera. *l.c.* 28: 163–172.
——& LAMOND, J. M. (1968). Studies in the flora of Afghanistan VII: Labiatae, Lam.—end. *l.c.* 28: 89–161.
——& WENDELBO, P. (1963). Studies in the flora of Afghanistan I. *Årbok Univ. Bergen mat.-nat. ser.* 1963, 18: 1–56.
——(1963). Notes on giant asphodels in Afghanistan. *Journ. Roy. Hort. Soc.* 88: 402–406.
——(1964). Acanthophyllum xanthoporphyranthum, sp. nov. from W Afghanistan. *Bot. Not.* 117: 315–317.
HENDERSON, D. M. & JØRSTAD, I. (1966). Studies in the flora of Afghanistan II: Uredinales. *Årbok Univ. Bergen mat.-nat. ser.* 1966, 4: 1–18.
—& PRENTICE, H. (1963). Bryophyta, in Studies in the flora of Afghanistan I. *l.c.* 1963, 18: 29–31.
HERMANN, N. M. (1965). *Le climat de l'Afghanistan.* 1–55. Paris.
HERZOG, Th. (1938). Bryophyta, in Botanische Ergebnisse der Deutschen Hindukusch-Expedition 1935. *Feddes. Rep. Beih.* 108: 3–12.
HIRANO, M. (1964). Freshwater algae of Afghanistan, in Kitamura, *Plants of West Pakistan and Afghanistan*, 167–246.
HUMLUM, J. (1959). *La géographie de l'Afghanistan.* 1–421. Copenhagen.
JACOB, K. & SHUKLA, B. N. (1955). Jurassic plants from the Saighan series of northern Afghanistan and their palaeogeographical significance (with a

note on the geology of the area by West, W. D.). *Palaeont. Ind.* n.s. 33, 2: 1–63.

JAFRI, S. M. H. (1955). Christolea: with special reference to the species in NW Himalayas, W Pakistan and Afghanistan. *Notes R.B.G. Edinb.* 22: 49–59.

——(1956). The genus Capparis in W Pakistan, Afghanistan and the NW Himalayas. *Pak. Journ. For.* 6: 191–202.

——(1956). Some Cruciferae of W Pakistan, Afghanistan and NW Himalaya. *Notes R.B.G. Edinb.* 22: 95–119.

——(1957). The genus Farsetia in Pakistan, India and Afghanistan. *l.c.* 22: 209–216.

JANATA, A. (1963). Die landwirtschaftliche Struktur Afghanistans. *Bustan* 4: 36–40.

JENTSCH, Ch. (1965). Typen der Agrarlandschaft im zentralen und östlichen Afghanistan. *Arb. Geogr. Inst. Univ. Saarland* 10: 23–68.

——(1967). Erste Ergebnisse geographischer Forschungen in Afghanistan im Herbst 1965. *Geogr. Zeitschr.* 55: 52–61.

KAMAL, A. H. (1959). *Das Agrarland Afghanistan und seine Zukunft.* 1–210. Diss., Zürich.

KHAN, M. I. R. & BEG, A. R. (1968). A phytogeographical excursion in Afghanistan. *Pak. Journ. For.* 18: 287–300.

KERSTAN, G. (1937). Die Waldverteilung und Verbreitung der Baumarten in Ost-Afghanistan und in Chitral. *Deutsche Forschung.* N.F. 1: 141–167.

KITAGAWA, N. (1964). Bryophytes of Afghanistan, in Kitamura, *Plants of West Pakistan and Afghanistan,* 163–166.

KITAMURA, S. (1956). New species from Afghanistan collected by the Kyoto University Expedition 1955: I, *Acta Phytotax. Geobot.* 16: 131–140; II, l.c. 17: 33–40, (1957); III, l.c. 17: 131–142 (1958).

——(1960). Flora of Afghanistan. *Results of the Kyoto University expedition to the Karakoram and Hindukush* 2: 1–486. Kyoto.

——(1963). New species from W Pakistan and Afghanistan. *Acta Phytotax. Geobot.* 19: 97–106.

——(1964). Plants of West Pakistan and Afghanistan. *Results of the Kyoto University expedition to the Karakoram and Hindukush* 3: 1–283. Kyoto.

—& YOSII, R. (1966). Additional reports. *Results of the Kyoto University expedition to the Karakoram and Hindukush* 8: 1–419. Kyoto.

KLAPPERICH, J. (1954). Obstsortent und ihre Schädlinge in Nuristan, Afghanistan. *Gesunde Pflanze* 6: 186–187.

KOEIE, M. & RECHINGER, K. H. (ed. with various authors 1954–65). Symbolae Afghanicae: I, Labiatae. *Biol. Skr.* 8, 1: 1–80 (1954); II, Compositae, *l.c.* 8, 2: 1–215 (1955); III, Leguminosae, *l.c.* 9, 3: 1–208 (1957); IV, Pteridophyta, Cruciferae, Saxifragaceae, Geraniaceae, Linaceae, Guttiferae, Onagraceae, Primulaceae, Apocynaceae, Asclepiadaceae, Convolvulaceae, Solanaceae, Scrophulariaceae, Rubiaceae, Dipsacaceae, Liliiflorae, Orchidaceae, *l.c.* 10, 3: 1–191 (1958); V, Ephedraceae, Zygophyllaceae, Tamaricaceae, Thymelaeaceae, Elaeagnaceae, Umbelliferae, Plumbaginaceae, Boraginaceae, Verbenaceae, Orobanchaceae, Plantaginaceae, Valerianaceae, Araceae, *l.c.* 13, 4: 1–267 (1963); VI, Cyperaceae, Gramineae, *l.c.* 14, 4: 1–94 (1965).

KOYAMA, T. (1957). Cyperaceae of the vascular collection made by Kyoto

University expedition to Afghanistan in 1955. *Acta Phytotax. Geobot.* 17: 46–51.

KUDRYASHEV, S. N. (1940). New species of plants from the Pamiro-alai and Hindukush. *Bot. Mat. Herb. Bot. Inst. Uzb. Fil. AN SSR* 1: 3–18 (1940).

LALANDE, P. (1967). Généralités sur la végétation du Safed-Koh et de son prolongement occidental. *Bull. Soc. Hist. Nat. Toulouse* 103: 297–304.

——(1968). Observations sur quelques arbres Afghans. *l.c.* 104: 131–137.

——(1968). Généralités sur la végétation du bassin du Kaboul en Afghanistan. *Trav. Lab. for. Toulouse* t. V, sect I, 3, art. III: 1–17.

——(1968). Etages à genévriers en Afghanistan. *Compt. rend. Acad. Sc. Paris* 267, ser. D: 503–504.

LANGE-DE LA CAMP, M. (1939). Die Weizen der Deutschen Hindukusch—Expedition 1935. *Landwirtsch. Jahrb.* 88: 14–133.

LANGE, M. (1953). Some Gasteromycetes from Afghanistan. *Bot. Tidsskr.* 50: 79–80.

LEIN, A. (1949). Asiatische Weizensortimente. *Kühn Archiv.* 62: 216–310.

LEUTELT, R. (1935). Glazialgeologische Beobachtungen im Laristanischen Hochgebirge Afghanistans. *Zeit. Gletsch. Leipzig* 23: 27–80.

LINCHEVSKI, I. A. & PROZOROVSKI, A. V. (1944). The vegetation of Afghanistan. *Bot. Zhurn.* 29: 114–123. (in Russian).

——(1946). The basic principles of the distribution of the vegetation of Afghanistan in *Volume Sci. Works Leningr.* 1941–43: 183–218. (in Russian). (Translated by H. K. Airy Shaw, *Kew Bull.* 1949: 179–214).

MIRWALD, P. & ROEMER, H. (1967). Beobachtungen im Wakhan. *Erdkunde* 21: 48–57.

MUNDKUR, B. B. (1941). Some fungi from Afghanistan. *Kew Bull.* 1940: 285–288.

MURATA, G. (1958). New Labiatae from Afghanistan collected by the Kyoto expedition 1955. *Acta Phytotax. Geobot.* 17: 73–75.

——(1966). New Labiatae from Afghanistan and Nepal. *l.c.* 22: 21–24.

MURATOVA, V. S. (1928). Beans of Afghanistan. *Bull. appl. Bot., Genetics & Plant Breeding* 19, 2: 1–22. (in Russian).

NEUBAUER, H. F. (1952). Über ein ursprüngliches Vorkommen der wilden Vitis vinifera L. in Ost-Afghanistan. *Vierteljahr. d. Höh. Bundes- Lehr-und Versuchsanst. für Weir- Obst-und Gartenbau in Klosterneuburg* 1952: 139–146.

——(1952). Beobachtungen über die Verdunstungsgrösse in Afghanistan. *Wetter und Leben* 4: 18–24.

——(1952). Temperaturbeobachtungen in Gewässern Afghanistans. *l.c.* 4: 115–118.

——(1952). Notizen über die Temperatur der Bodenoberfläche in Afghanistan. *l.c.* 4: 165–168.

——(1954). Die Wälder Afghanistans. *Angew. Pflanzensoziol. Erwin Aichinger Festschrift* 1: 494–503.

——(1954). Bemerkungen über das Vorkommen wilder Obstsorten in Nuristan. *Angewandte Bot.* 28: 81–88.

——(1954). Über einige beachtenswerte Feldunkräuter in Afghanistan und ihre landwirtschaftliche Bedeutung. *l.c.* 28: 169–177.

——(1954–55). Versuch einer Kennzeichnung der Vegetationsverhältnisse Afghanistans. *Ann. Nathist. Hofmus. Wien* 60: 77–113.

——(1967). Botanische Notizen aus Afghanistan I: Ein natürlicher Bestand von Eremurus-Hybriden in Nordwest-Afghanistan. *Vegetatio* 15: 117–123.
NIEDERMAYER, O. v. (1924). *Afghanistan*. Leipzig.
NURI, J. M. (1961). Beiträge zur Kenntnis der Steppenpflanzen Afghanistans. *Die morphologische Plastizität von Lactuca orientalis und Artemisia tournefortiana*. 1–63. Diss., Würzburg.
OHWI, J. (1957). New species from Afghanistan and Karakoram collected by the Kyoto University Expedition 1955. *Acta Phytotax. Geobot.* 17: 14–16.
PEDERSON, K. & WENDELBO, P. (1966). Chromosome numbers of some SW Asian Allium species. *Blyttia* 24: 307–313.
PELT, J.-M., HAYON, J. C. & YOUNOS, M. Ch. (1965). Plantes medicinales et drogues de l'Afghanistan. *Bull. Soc. Pharm. Nancy* 66: 16–61.
——(1968). Sur la flore et la végétation d'une zone halophile steppique en bordure de l'Amou-Darya (Afghanistan). *Compt. rend. Acad. Sc. Paris* 267, ser D: 505–508.
——(1968). Sur la flore et la végétation des bords du lac Ab-i-Istada. *l.c.* 1279–1282.
——(1969). Caractères écologiques et floristiques de deux stations halophiles d'Afghanistan. *Vegetatio* 16: (in press).
PETRAK, F. (1953). Beiträge zur Pilzflora von Afghanistan. *Sydowia* 7: 84–97.
——(1963). Ein Beitrage zur Pilzflora von Afghanistan. *l.c.* 16: 331–349.
——(1966). Kleine Beiträg zur Ustilagineen—und Uredineenflora Afghanistans und Pakistans. *l.c.* 20: 278–287.
PICKETT, L. C., MA-YAR, MOH. Q. & SALEH, Z. (1968). Bibliography of materials dealing with agriculture in Afghanistan. 1–316. *Technical Bull. no.* 8 *Fac. of Agric. Kabul University*.
PODLECH, D. (1967). Neue und bemerkenswerte Fabaceae aus Nordost-Afghanistan. (Beiträge zur Flora von Afghanistan II). *Mitt. Bot. Staatssamml. München* 6: 547–591.
——(1968). Neue und bemerkenswerte Arten aus Nordost-Afghanistan. (op. cit. III). *l.c.* 7: 101–117.
——(1969). Neue und bemerkenswerte Arten aus Nordost-Afghanistan 2. (op. cit. V). *l.c.* 8: (in press).
——& DEML, J. (1967). Eine interessante neue Astragalus-Art aus Afghanistan. (Beiträge zur Flora Afghanistan I). *l.c.* 6: 541–546.
———(1969). Neue und bemerkenswerte Fabaceae aus Nordost-Afghanistan 2. (op. cit. IV). *l.c.* 8: (in press).
——& DIETERLE, A. (1969). Chromosomenstudien an afghanischen Pflanzen. *Candollea* (in press).
POELT, J. & WIRTH, V. (1968). Flechten aus dem nordöstlichen Afghanistan gesammelt von H. Roemer im Rahmen der Deutschen Wakhan-Expedition 1964. *Mitt. Bot. Staatssamml. München* 7: 219–261.
POLATSCHEK, A. (1968). Cytotaxonomische Beiträge zur Flora Iranica I. *Ann. Nathist. Hofmus. Wien* 72: 581–586.
POPOV, M. (1940). The genus Eremostachys. *Nouv. Mém. Soc. Nat. Mosc.* 19: 1–166. (in Russian).
RECHINGER, K. H. (1949). Plantarum novarum orientalium descriptiones. *Öst. Bot. Zeitschr.* 95: 422–427.
——(1950). Compositae novae persicae, afghanicae et kurdicae. *l.c.* 97: 221–268.

——(1951). Borraginaceae novae orientales. *Ann. Nathist. Hofmus. Wien* 58: 44–61.

——(1951). Die ausdauernden Ziziphora-Arten des iranischen Hochlandes und seiner Nachbargebiete. *Phyton* 3: 161–172.

——(1951). Caryophyllaceae novae persicae, afghanicae et kurdicae. *Bot. Jahrb.* 75: 342–364.

——(1953). Cousinia-Studien. *Öst. Bot. Zeitschr.* 100: 437–477.

——(1954). Die Gattung Thymus in Persien und den angrenzenden Gebieten. *Phyton* 5: 280–303.

——(1954). Cruciferae novae Afghanicae. *Anz. Öst. Akad. Wiss. math.-nat. Klasse* 7: 58–64.

——(1957). Caryophyllaceae novae afghanicae. *Öst. Bot. Zeitschr.* 104: 173–174.

——(1961——). Notizen zur Orient-Flora. *Anz. Öst. Akad. Wiss. math.-nat. Klasse. nos.* 11–13 1961, 44–46; 14–17 1961, 77–79; 31–34 1963, 52–55; 39–48 1964, 344–354; 50–54 1964, 362–367; 55–56 1964, 398–400; 57–62 1964, 400–406; 63–69 1964, 422–427; 74–78 1964, 427–431; 79 1965, 11–12; 82–88 1966, 282–289; 91 1967, 418–420; 92–95 1968, 5–9; 96–98 1968, 9–12; 99–103 1968, 178–182; 104–108 1968, 241–245.

——(1963). Bericht über eine botanische Expedition nach Afghanistan. *Anz. Öst. Akad. phil. hist. Klasse* 100: 71–72.

——(1963). Die Caryophyllaceae-Gattung Pleioneura Rech. f. und ihre systematische Stellung. *Ann. Nathist. Hofmus. Wien* 66: 45–50.

——(1963——). Flora Iranica. Graz. Edited by K. H. Rechinger with various authors. Acanthaceae (no. 24, 1966), Aceraceae (no. 61, 1969), Anacardiaceae (no. 63, 1969), Aquifoliaceae (no. 25, 1966), Araceae (Dec. 1963), Aristolochiaceae (no. 26, 1966), Bignoniaceae (no. 44, 1967), Boraginaceae (no. 48, 1967), Buxaceae (no. 27, 1966), Campanulaceae (no. 13, 1965), Capparidaceae (in press), Caprifoliaceae (no. 10, 1965), Celastraceae (no. 64, 1969), Ceratophyllaceae (no. 28, 1966), Cistaceae (no. 46, 1967), Convolvulaceae (Dec. 1963), Cornaceae (no. 54, 1968), Cruciferae (no. 57, 1968), Cupressaceae (no. 50, 1968), Cuscutaceae (no. 8, 1964), Datiscaceae no. 29, 1966), Ebenaceae (no. 30, 1966), Elaeagnaceae (no. 55, 1968), Elatinaceae (no. 16, 1966), Ephedraceae (Dec. 1963), Ericaceae (no. 11, 1965), Euphorbiaceae (no. 6, 1964), Gentianaceae (no. 41, 1967), Globulariaceae (no. 17, 1966), Grossulariaceae (no. 47, 1967), Guttiferae (no. 49, 1968), Haloragaceae (no. 18, 1966), Hamamelidaceae (no. 53, 1968), Hippuridaceae (no. 31, 1966), Hydrangeaceae (no. 19, 1966), Lentibulariaceae (no. 58, 1969), Loganiaceae (no. 45, 1967), Lythraceae (no. 51, 1968), Myrtaceae (no. 32, 1966), Nymphaeaceae (no. 33, 1966), Oleaceae (no. 52, 1968), Onagraceae (no. 7, 1964), Orobanchaceae (no. 5, 1964), Oxalidaceae (no. 40, 1968), Paeoniaceae (no. 60, 1969), Papaveraceae (no. 34, 1966), Parnassiaceae (no. 20, 1966), Phytolaccaceae (no. 35, 1966), Pinaceae (no. 14, 1965), Plantaginaceae (no. 15, 1965), Platanaceae (no. 21, 1966), Polygonaceae (no. 56, 1968), Primulaceae (no. 9, 1965), Punicaceae (no. 22, 1966), Rosaceae I (no. 66, 1969), Rutaceae (no. 36, 1966), Salicaceae (no. 65, 1969), Salvadoraceae (no. 37, 1966), Sapindaceae (no. 38, 1966), Saxifragaceae (no. 42, 1967), Sparganiaceae (no. 59, 1969), Tamaricaceae (no. 4, 1964), Taxaceae (no. 12, 1965), Theligonaceae (no. 39, 1966),

Vahliaceae (no. 23, 1966), Valerianaceae (no. 62, 1969), Verbenaceae (no. 43, 1967).

——(1966). Scleranthopsis, eine neue Caryophyllaceen-Gattung aus Afghanistan. *Ann. Nathist. Hofmus. Wien* 70: 37–39.

——& RIEDL, H. (1962). Zur Flora von Nordost-Afghanistan. *l.c.* 65: 29–37.

——& ŠIRJAEV, G. (1951). Astragali et Onobrychides novi orientales. *l.c.* 58: 62–76.

REGEL, C. (1960). Probleme pflanzlicher Rohstoffe in Afghanistan. *Honorem W. Weisbach.* 127–134. The Hague.

RIEDL, H. (1962). Die einjährigen Arten der Gattung Arnebia Forssk. *Öst. Bot. Zeitschr.* 109: 45–80.

——(1963). Revision der einjährigen Arten von Adonis L. *Ann. Nathist. Hofmus. Wien* 66: 51–90.

——(1963). Bemerkungen über neue oder kritische Borraginaceen der asiatischen Flora. *Öst. Bot. Zeitschr.* 110: 511–542.

——(1964). Ergänzende Bemerkungen zur Kenntnis von Arnebia Forssk. *l.c.* 111: 149–153.

——(1968). Zwei neue Heliotropium-Arten aus Afghanistan. *l.c.* 115: 100–103.

RIEMER, E. (1938). Botanische Ergebnisse der Deutschen Hindukusch-Expedition 1935. Lichenes. *Feddes. Rep. Beih.* 108:13–25.

ROEMER, H. (1965). Vegetation im Wakhan in *Deutsche Wakhan-Expedition* 1964. 41–43. Traunstein.

ROEMER, W. & ROSENSTIEL, K. VON (1937). Die landwirtschaftlichen Sammelarbeiten der Expedition und ihre Ergebnisse. Deutsche im Hindukusch. *Deutsche Forschung.* N.F. 1: 55–97.

ROSHEVITZ, R. (1928). Nouveaux matériaux sur la flore graminées de l'Afghanistan. *Bull. Appl. Bot. Gen. & Plantbreeding* 19: 121–126.

ROSHKOVA, O. (1965). De speciebus afghanicis generis Psylliostachys (Jaub. et Sp.) Nevski. *Nov. sist. vyss. rast.* 1965:210–219.

ROZANOV, A. N. (1945). The soils of Afghanistan. *Pochvovedenie* no. 3–4: 199–208. (in Russian).

RYTZ, W. (1952). Einige bemerkenswerte Pflanzen von Afghanistan gesammelt im Aug. 1951 von Alfred Gysel. *Mitt. Naturf. Gesellsch. Bern* 9 : 38.

RUBIO GARCIA, L. (1965). Afghanistán, ejemplo de un país con una economia agricola inicial. *Rev. estud. agro-soc.* 14: 154–169.

SCHEIBE, A. (1937). Die Landbauverhältnisse in Nuristan. *Deutsche Forschung.* N.F. 1: 98–140.

——(1939). Ergebnisse der Deutschen Hindukusch-Expedition 1935. Vorbemerkungen. *Landwirtsch. Jahrb.* 88: 12–14.

SCHINDLER, F. (1934). *Aus der Urheimat unserer Getreidearten.* Brünn.

SCHWARTZ, O. (1961). Über eine neue Art der Primula-Sektion Floribundae Pax aus Afghanistan. *Feddes Rep.* 64: 85–87.

SEWARD, A. C. (1912). Mesozoic plants from Afghanistan and Afghan-Turkestan. *Palaeont. Ind.* n.s. 4, 4: 1–57.

ŠIRJAEV, G. (1941). Astragalus viridiformis sp. nov. et A. bornmuellerianus. *Feddes Rep.* 50: 285.

SNOY, P. (1962). *Die Kafiren. Formen der Wirtschaft und geistigen Kultur.* 1–277. Diss., Frankfurt.

——(1964). Feldbestellung in Mundschan. *Festschr. A. E. Jensen, pt.* 2: 665–669. München.
——(1965). Nuristan und Munjan. *Tribus* 14: 101–148.
STENZ, E. (1946). *The climate of Afghanistan; its aridity, dryness and divisions.* 14 p. Polish Inst. Arts Sci. Amer. New York.
——(1948). Le climat de Kaboul. *Afghanistan* 3, 1: 12–19.
——(1957). Precipitation, evaporation and aridity in Afghanistan. *Acta geophys. pol.* 5: 245–266.
TAMURA, M. (1956). New species from Afghanistan collected by the Kyoto University Expedition 1955. *Acta Phytotax. Geobot.* 16: 141–142.
TOWNSEND, C. C. (1966). Mosses from Iran and Afghanistan. *Trans. Brit. Bryol. Soc.* 5: 131–135.
——(1967). A remarkable new species of Chesneya Lindl. from Afghanistan. *Kew Bull.* 21: 293–294.
TUISL, G. (1968). Der Verwandtschaftskreis der Gattung Lactuca L. im iranischen Hochland und seinen Randgebieten. *Ann. Nathist. Hofmus. Wien* 72: 587–638.
UFER, M. (1952). Der Einfluss der Juni-Nachtfröste 1949 im Kabulgebiet auf Kultur-Sonnenblumen. *Zeitschr. für Pflanzenzücht.* 31: 218–225.
VAN SOEST, J. L. (1960). New species of Taraxacum from Asia. *Acta Bot. Neerland.* 9: 302–326.
VASSILCZENKO, I. (1966). Generis Vitis L. species nova ex Afghanistania. *Nov. sist. vyss. rast.* 1966: 183–185.
VAVILOV, N. I. & BUKINITCH, D. (1928). *Agricultural Afghanistan.* 1–610. Leningrad. (in Russian).
VOLK, O. H. (1951). Vegetationseindrücke in Afghanistan. *Vegetatio* 3: 210–212.
——(1954). Klima und Pflanzenverbreitung in Afghanistan. *l.c.* 5–6: 422–433.
——(1954). Landwirtschaftliche Probleme Afghanistans. *Mitt. Inst. Auslandsbez.* 4, 9–10: 233–236.
——(1955). Afghanische Drogen. *Planta med.* 3: 171–178.
——(1963). Eine Besprechung von J. Humlum: La Géographie de l'Afghanistan. *Erde* 94: 73–76.
WAGENITZ, G. (1956). Die Gattung Psammogeton Edgew. *Ber. Deutsch. Bot. Gesellsch.* 69: 227–238.
WEBER, K. E. (1967). Bericht über das Afghanistan-Treffen in Heidelberg. *Jahrb. Südasien-Inst. Univ. Heidelberg* 1966: 127–140.
WENDELBO, P. (1951). Kornugras fra Afghanistan. *Blyttia* 9: 120–122.
——(1959). Two new species of Dionysia from Afghanistan. *Bot. Not.* 112: 495–501.
——(1961). Studies in Primulaceae I: a monograph of the genus Dionysia. *Årbok Univ. Bergen mat.-nat. ser.* 1961, 3: 1–83.
——(1962). Studies in oriental Liliiflorae I-II. *Nytt. Mag. Bot.* 9: 211–214.
——(1963). Studies in Primulaceae IV: the genus Dionysia in Afghanistan. *Årbok Univ. Bergen. mat.-nat. ser.* 1963, 19: 1–28.
——(1964). On the genus Eremurus in SW Asia. *l.c.* 1964, 5: 1–45.
——(1964). Two new species of Scrophularia from E Afghanistan. *Bot. Not.* 117: 366–370.

——(1965). The genus Pedicularis in Afghanistan with notes on the floral morphology of P. bicornuta. (Studies in the flora of Afghanistan II). *Nytt. Mag. Bot.* 12: 123–134.
——(1966). New taxa and synonyms in Allium and Nectaroscordum of SW Asia. *Acta Hort. Gotoburg.* 28: 15–55.
——(1966). Further notes on Eremurus in Afghanistan. (Studies in the flora of Afghanistan V). *l.c.* 28: 57–63.
——(1966). A new species of Corydalis sect. Oocapnos from Afghanistan. *Bot. Not.* 119: 243–248.
——(1966). Trekk av Afghanistans plantegeografi. *Acta Univ. Gothob., Botanica Gothob.* 5: 1–20.
——(1966). The genus Allium. A Lily group discussion. *The Lily Year Book, London* 1967: 1–15.
——(1968). Some new species of Allium from Afghanistan. (Studies in the flora of Afghanistan IX). *Bot. Not.* 121: 269–277.
——(1969). New Subgenera, Sections and Species of Allium. *l.c.* 122: 25–37.
——(1969). Two new species of Iris from Afghanistan (Studies in the flora of Afghanistan X) *l.c.* 204–206.
——& FURSE, P. (1968). Eremurus of South-West Asia. *The Lily Year Book, London* 1969: 56–69.
WILBER, D. (1962). *Annotated bibliography of Afghanistan.* 2 ed. New Haven.
YOUNOS, M. CH. (1966). *Étude de quelques espèces des genres Datura et Hyoscyamus recoltées en Afghanistan.* 1–131. Thèse, Nancy.
ZIMMERMANN, W. (1936). Die Stammesgeschichte des Weizens. *Aus der Heimat* 49: 194–202.

II. SOME REFERENCES TO ADJACENT COUNTRIES

AGACHANJANC, O. E. (1958). Short synopsis of the vegetation of Badakshan. *Trudy Akad. Nauk tadzh. SSR; sb. st. Tadzhik. fil. VGO.*, 99. (in Russian).
AHMAD, SULTAN (1956). Uredinales of W Pakistan. *Biologia, Lahore* 2: 26–101.
——(1956). *Fungi of W Pakistan.* 1–126. Lahore.
——(1960). Further contributions to the fungi of W Pakistan I. *Biologia, Lahore* 6: 117–136.
ANNANDALE, N. & CARTER, H. G. (1919). Notes on the vegetation of Sistan. *Journ. As. Soc. Beng.*, n.s. 15: 267–297.
BLATTER, E. & FERNANDEZ, J. (1931). Waziristan Mosses with some new species described by H. N. Dixon. *Journ. Ind. Bot. Soc.* 10: 145–153.
——(1933–35). The flora of Waziristan. *Journ. Bomb. Nat. Hist. Soc.* 36: 665–687, 950–977; 37: 150–171, 391–424, 603–619.
——& HALLBERG, F. (1917). Contributions towards a Flora of Persian Baluchistan and Makran. *l.c.* 25: 723–739.
——& MCCANN, C. (1921). Contributions towards a Flora of Baluchistan. *Journ. Ind. Bot.* 1: 54–59, 84–91, 128–138, 169–178, 226–236, 263–270, 344–352.
BORNMÜLLER, J. (1939). Aus der Pflanzenwelt von Iranisch-Baluchistan und der angrenzenden Wüste Lut. (Gabriel, Iter irano-gedrosiacum a. 1937). *Beih. Bot. Centralbl.* 59B: 287–316.

BRANDIS, D. (1884-1885). Der Wald des äusseren nordwestlichen Himalaya. *Verh. naturhist. Ver. preuss. Rheinlande u. Westf.* 42: 153–180.

BURGESS, R. L. & MOKHTARZADEH, A. (1966). A preliminary bibliography of the natural history of Iran. *Pahlavi Univ. Coll. Art. Sci. Science Bulletin no.* 1, 1–220. Shiraz.

BURKILL, I. H. (1909). *A working list of the flowering plants of Baluchistan.* 1–136. Calcutta.

CZERNIAKOWSKA, E. (1930). Khorasan and Seistan. *Trudy prikl. Bot. Genet. Selek.* 23, 5: 1–271. (in Russian).

CZERNIAKOWSKA-REINECKE, E. (1930). Letzte Neuheiten über die Flora Turkmenistans und Nordpersiens. *Feddes Rep.* 28: 262–287.

DIXON, H. N. (1929). Mosses collected in Waziristan by J. Fernandez in 1927. *Journ. Bomb. Nat. Hist. Soc.* 33: 279–283.

DUTHIE, J. F. (1898). The botany of the Chitral Relief Expedition 1895. *Rec. Bot. Surv. Ind.* 1: 140–181.

GUSEV, Y. D. (1966). The flora of the Sarezskiy district of the Badakhshan region and its affinities with the flora of the Pamirs. *Bot. Zhurn.* 51: 64–73. (in Russian).

HARTMANN, H. (1966). Beiträge zur Kenntnis der Flora des Karakorum. (Floristische Ergebnisse der Schweizerischen Expedition zum Biafo-Gletscher 1962). *Bot. Jahrb.* 85: 259–328.

——(1968). Über die Vegetation des Karakorum I. Teil: Gesteinsfluren, subalpine Strauchbestände und Steppengesellschaften im Zentral-Karakorum. (Vegetationskundliche Ergebnisse der Schweizerischen Expedition zum Biafo-Gletscher 1962). *Vegetatio* 15: 297–387.

HOOKER, J. D. (1875–97). Flora British India, vols. 1–7. London.

IKONNIKOV, S. S. (1963). Plants of the Pamirs. *Trudy Inst. Bot. Stalinabad* 20: 1–281. (in Russian).

KOMAROV, V. L. (1934–64). *Flora URSS*, vols. 1–30. Leningrad. (in Russian).

KORNILOWA, W. S. (1966). Principles of history of flora and vegetation of Kazakhstan in *Rast. Pokrow Kasachstana* 1: 37–137. Alma Ata. (in Russian).

KOROVIN, E. P. (1961–62). *Vegetation of Middle Asia and Southern Kazakhstan*, vols. 1–2, ed. 2. Tashkent. (in Russian).

LACE, J. H. & HEMSLEY, W. B. (1891). A sketch of the vegetation of British Baluchistan. *Journ. Linn. Soc. Bot.* 28: 288–327.

LADYGINA, G. M. & LITVINOVA, N. P. (1966). Dynamics of plant-communities in the high mountainous regions of Pamir. *Bot. Zhurn.* 51: 792–800. (in Russian).

MAYNARD, F. P. & PRAIN, D. (1896). A note on the botany of the Baluch-Afghan Boundary Commission 1896. *Rec. Bot. Surv. Ind.* 1: 125–137.

OVCHINNIKOV, P. N. (1957, 1963——). *Flora of Tadzhikistan*, vols. 1–2—— Moscow-Leningrad. (in Russian).

PARSA, A. (1943–52). *Flore de l'Iran*, vols. 1–5 and suppl. Tehran.

PAULSEN, O. (1903–09). Plants collected in Asia-Media and Persia. 1, *Vidensk. Medd. naturh. Foren. Kobenhavn* 1903: 133–205; 2–7 and additions and corrections, *Bot. Tidsskr.* 26: 251–274; 27: 127–151, 209–219; 28: 215–218, 219–232, 233–248; 29: 153–165.

——(1912). *Studies in the vegetation of the Transcaspian Lowlands.* 1–279. Copenhagen. (Translated from *Bot. Tidsskr.* 32: 1–239, 1911).

PAVLOV, H. V. (1947). The vegetation resources of South Kazakhstan. *Mater. Pozn. Fauny Flory SSSR* n.s. Bot. 3: 1–203. (in Russian).
——(1965–66——). *Flora of Kazakhstan*, vols. 1–9——. Alma Ata. (in Russian).
QURAISHI, M. A. & KHAN, S. A. (1965, 1967——). Flora of the Peshawar district and Khyber Agency. *Pak. Journ. For.* 15: 364–393; 17: 203–254.
RECHINGER, K. H. (1963–69——). *Flora Iranica*, nos. 1–66——. Graz. (see page 365).
SCHISCHKIN, B. K. (1932–60). *Flora Turkmenia*, vols. 1–7. Aschkabad. (in Russian).
SCHWEINFURTH, U. (1957). Die horizontale und vertikale Verbreitung der Vegetation in Himalaya. *Bonn. Geogr. Abh.* 20: 1–373.
STEWART, J. L. (1864). Memoranda on the Peshawar valley, chiefly regarding its flora. *Journ. As. Soc. Beng.* 32: 219–266.
STEWART, R. R. (1967). Plant collectors in West Pakistan and Kashmir. *Pak. Journ. For.* 17: 337–364.
——(1967). Check list of the plants of Swat State, NW Pakistan. *Pak. Journ. For.* 17: 457–528.
——(1967). The Flora of the Kurram Valley. *Biologia, Lahore* 13: 48–124.
STØRMER, P. (1954). Mosses from Tirich Mir; contributions to the bryology of NW Pakistan. *Nytt. Mag. Bot.* 3: 213–226.
TROLL, C. (1967). Die klimatische und vegetationsgeographische Gliederung des Himalaya-Systems. *Khumbu Himal* 1, 5: 353–388. München.
VVEDENSKY, V. V. (1941–62). *Flora Uzbekistan*, vols. 1–6. Tashkent. (in Russian).
WENDELBO, P. (1952). Plants from Tirich Mir. *Nytt. Mag. Bot.* 1: 1–70.
WISSMANN, H. VON. (1959). Die heutige Vergletscherung und Schneegrenze in Hochasien. *Abh. math.-naturw. Kl. Akad. Wiss. Mainz* 1959, 14: 1103–1431.
WYCHODZEW, I. W. (1966). The geobotanical divisions of Kirgisia. *Geobot. Issled.w Kirgisii* 3–31. Frunze.
ZOHARY, M. (1963). On the geobotanical structure of Iran. *Bull. Res. Counc. Israel sect. D Botany* 11D suppl.: 1–113.

III. SOME USEFUL MAPS

Afghanistan 1: 1,000,000. World Maps (Asia). Sheets J–41; J–42; J–43; I–41; I–42; H–41; H–42.
Afghanistan 1: 1,300,000. Physical and political. Cartographic Institute, Kabul, 1968.
Afghanistan 1: 2,000,000. Map no. 279, Rev. 3. United Nations, New York. 1962.
Afghanistan 1: 2,000,000. Moscow. 1966.
Afghanistan 1: 1,000,000. Map no. 98. Sahab geographic and drafting institute Tehran. 1968.
Afghanistan, topographic maps. Ministry of Mines and Industry, Kabul, Afghanistan.
a) northern Afghanistan: 1: 250,000 and 1: 100,000—complete.
b) central and south Afghanistan: 1: 100,000—complete; 1: 50,000; 1: 250,000—not yet complete.

Frey, W. (1967). Munjan-Bashgal (C Afghanistan Hindu Kush) 1: 100,000 in Frey, W. *Zwischen Munjan und Bashgal.* Göppingen.

Frey, W. (1968). Koh-e-Bandakâ und Munjan-Pass (C Afghanistan) 1: 100,000 in *Öst. Alpenzeitung* 86, 2: 46–53.

USAF Operational Navigation Chart. (1960–67). 1: 1,000,000. Aeronautical chart and information center, United States Air Force, St. Louis. Sheets ONC–G6 Afghanistan (central, north); ONC–H7 Afghanistan (south-west); ONC–H8 Afghanistan (south-east).

Wala, J. (1967). Nordöstlicher (Hoher) Hindukusch. 1: 300,000. Cracow, Poland.