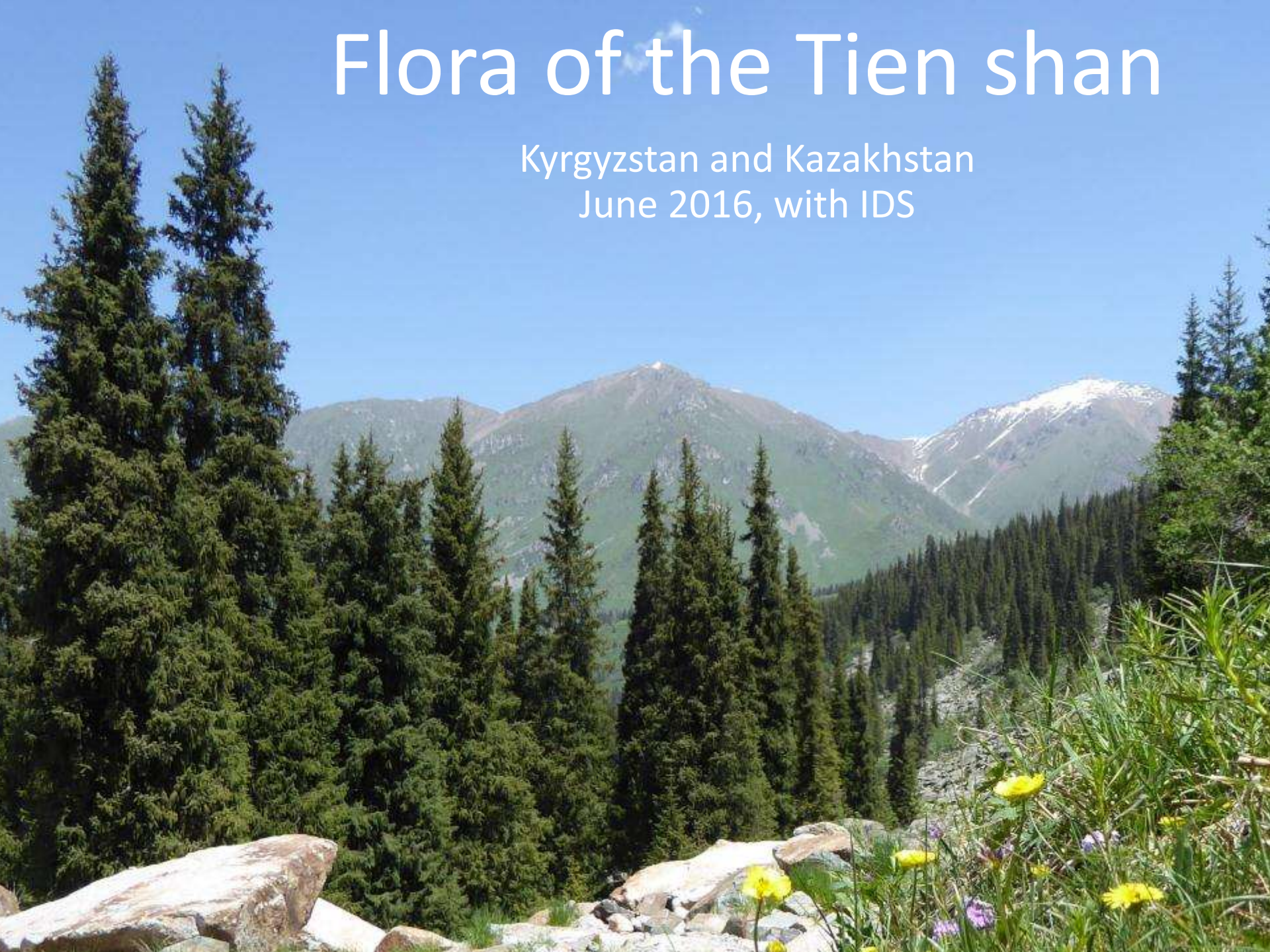


Flora of the Tien shan

Kyrgyzstan and Kazakhstan
June 2016, with IDS





AMERO

Ile-Alatau

Chichkan

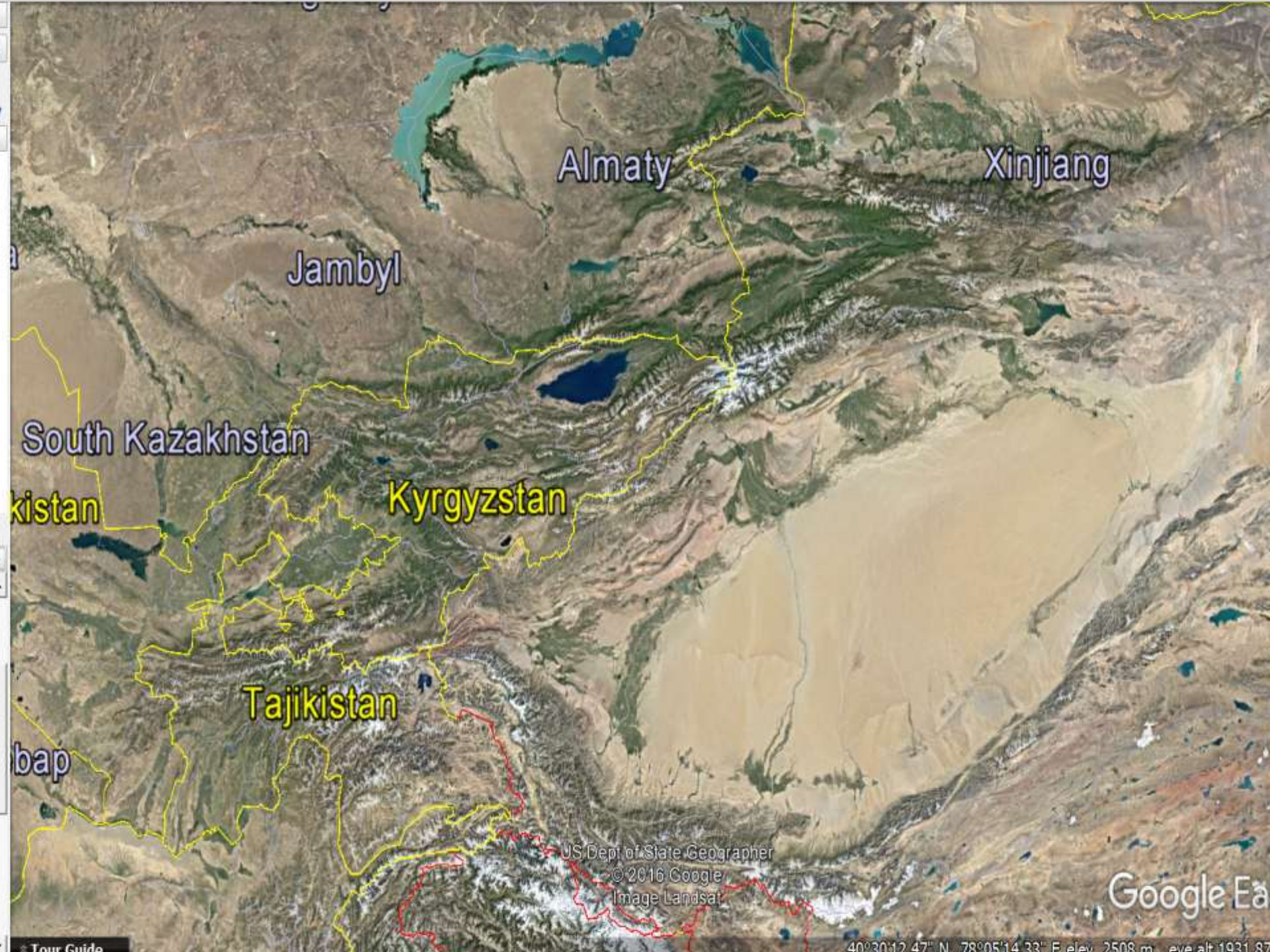
Bomi

Deqen

© 2016 ORION-ME
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
© 2016 ZENRIN

Go

42°13'19.84" N 78°56'02.01" E elev 1242 m



Almaty

Xinjiang

Jambyl

South Kazakhstan

kistan

Kyrgyzstan

Tajikistan

bap

US Dept of State Geographer
© 2016 Google
Image Landsat

Google Ea



Kazakhstan

Uzbekistan

Turkmenistan

Afghanistan

Pakistan

Terrain

View topography and elevation



Астана
Astana

Қарағанды
Karagandy

Семей
Semei

Уст-Каменогорск
Ust-Kamenogorsk

Алматы
Almaty

Шымкент
Shymkent

Бишкек
Bishkek

Кыргызстан

Ташкент

Душанбе
Dushanbe

Таджикистан

Кабул
Kabul

Исламабад
Islamabad

AMMU AND KASHMIR

Лахор
Lahore

HIMACHAL PRADESH

Чандигарх
Chandigarh

PUNJAB

UTTARAKHAND

HARYANA

Нью Дели
New Delhi

UTTAR PRADESH

Непал
Nepal

Катманду
Kathmandu

Бутан
Bhutan

ASSAM

NAGALAND

XINJIANG

QINGHAI

TIBET

ARUNACHAL PRADESH

BIHAR

Karatau Range

Ile-Alatau

Merke

Ala-Arca Nat. Res.

Too-Asuu Pass

Ala-Bel Pass

Aksu-Jabagli

Chichkan Gorge

Toktogul Lake

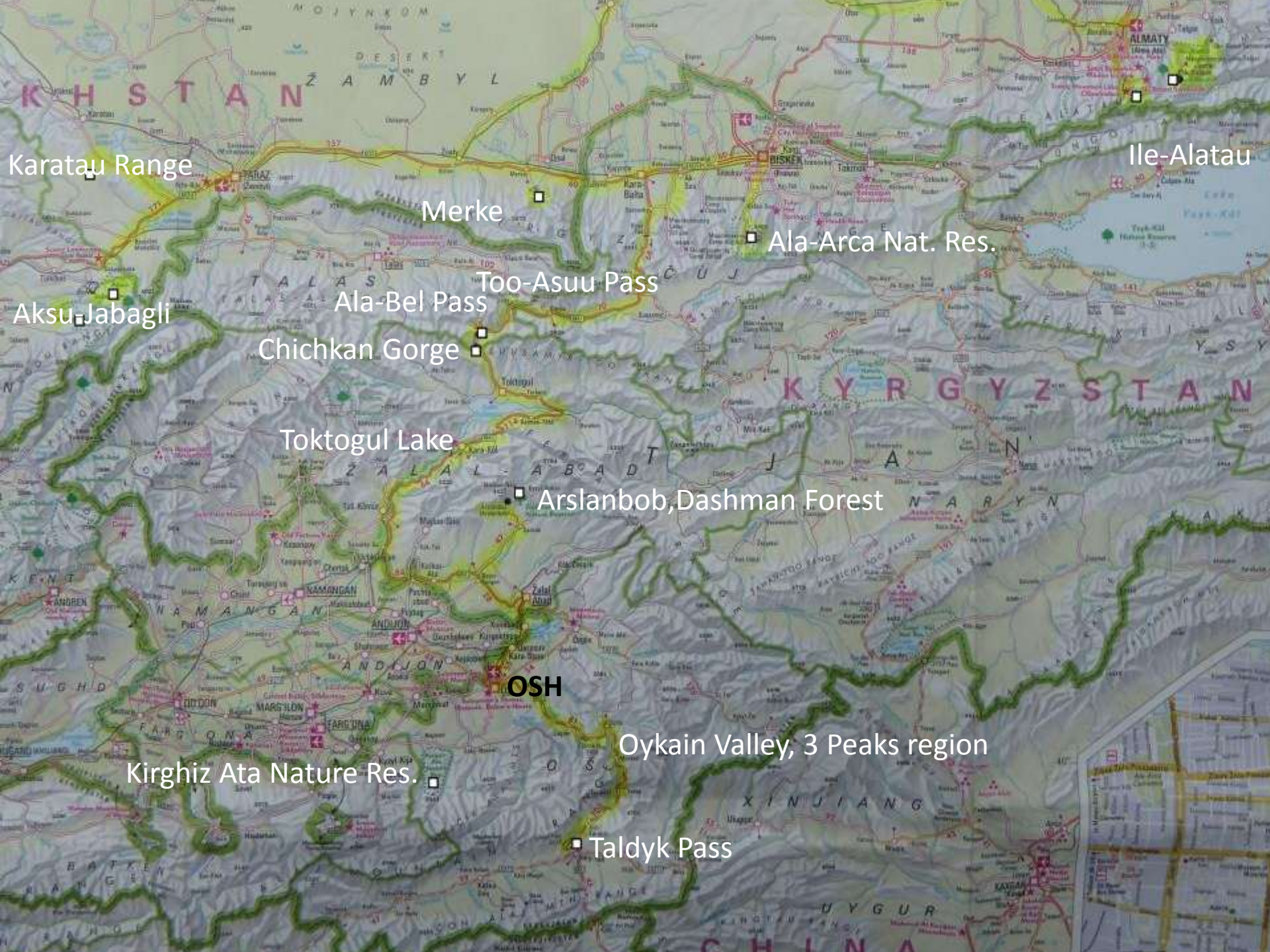
Arslanbob, Dashman Forest

OSH

Oykain Valley, 3 Peaks region

Kirghiz Ata Nature Res.

Taldyk Pass











Rosa canina



Rosa canina



Lonicera tatarica - Osh to Taldyk, Kirgiz. - 2016.0529



Lonicera tatarica - Osh to Taldyk, Kirgiz. - 2016.0529



Rosa platyacantha - Osh to Taldyk, Kirgiz. - 2016.0529 409



Atraphaxis sp (Polygonaceae) endemic of Tianshan - Osh to Taldyk, Kirg. - 2016.0529



Atraphaxis sp (Polygonaceae) endemic of Tianshan - Osh to Taldyk, Kirg. - 2016.0529





Populus afganica - Osh to Taldyk, Kirg. - 2016.0529



Populus afganica - Osh to Taldyk, Kirg. - 2016.0529



Populus afganica - Osh to Taldyk, Kirg. - 2016.0529



Taldyk Pass 3615 m - Osh to Taldyk, Kirg. - 2016.0529



Taldyk Pass 3615 m - Osh to Taldyk, Kirg. - 2016.0529



Taldyk Pass 3615 m - Osh to Taldyk, Kirg. - 2016.0529



Taldyk Pass 3500m - Osh to Taldyk, Kirg. - 2016.0529



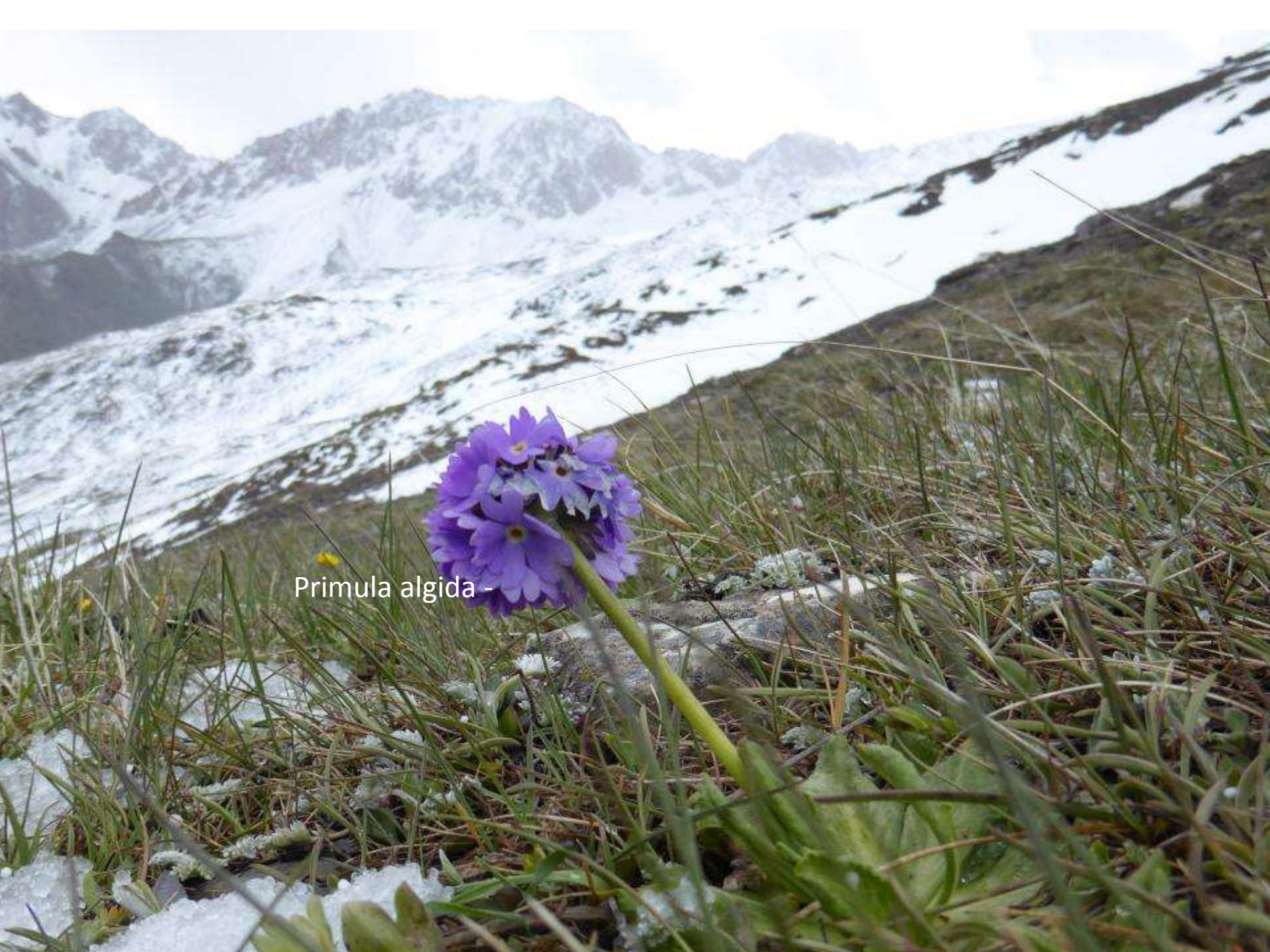
Smelowskia calycina (Brassicaceae) - Osh to Taldyk, Kirg. - 2016.0529



Smelowskia calycina (Brassicaceae) - Osh to Taldyk, Kirg. - 2016.0529



Smelowskia calycina (Brassicaceae) - Osh to Taldyk, Kirg. - 2016.0529



Primula algida -



Chorispora bungeana - 3500m Taldyk



Chorispora songarica



Primula algida -



Erysimum humilimum



















Myosotis asiatica, *Ranunculus albertii* - Osh to Taldyk, Kirg. -



Viola sp. - Osh to Taldyk, Kirg. - 2016.0529



Leontopodium ochroleucum , *Primula pamirica* 3100m - Osh to Taldyk, Kirg. - 2016.0529



Leontopodium ochroleucum , *Primula pamirica* 3100m - Osh to Taldyk, Kirg. - 2016.0529



Leontopodium ochroleucum , *Primula pamirica* 3100m - Osh to Taldyk, Kirg. - 2016.0529



Juniperus semiglobosa - Osh to Taldyk, Kirg. -



Oykain valley, 3 Peaks area - Osh to Taldyk, Kirgizstan, 29 May 2016





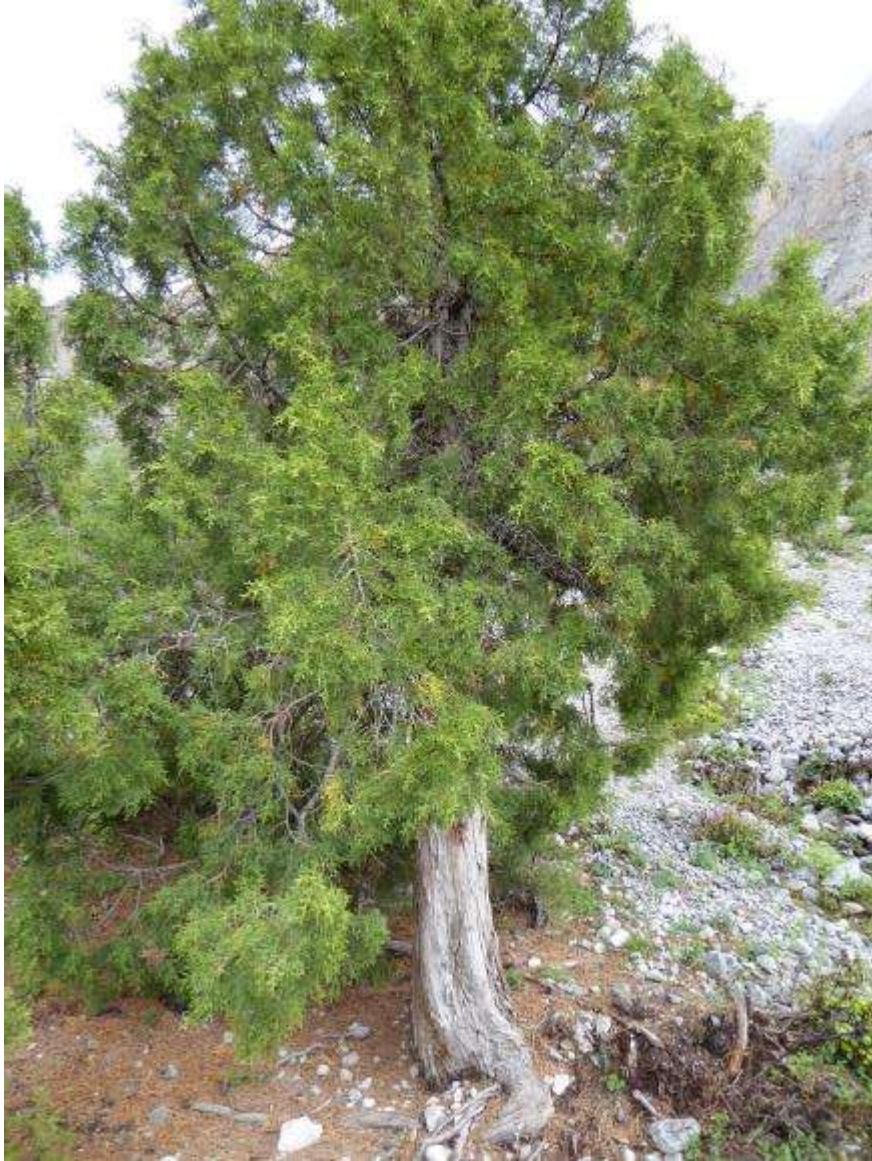
Clematis alpina
subsp. *sibirica*



Clematis alpina
subsp. sibirica



Betula turkestanica, *Juniperus semiglosa*, *Sorbus tienshanica* - Osh to Taldyk, Kirg. - 2016.0529



Betula turkestanica, *Juniperus semiglosa*, Osh to Taldyk, Kirg. - 2016.0529



Sorbus tienshanica - Osh to Taldyk, Kirg. - 2016.0529



Sorbus tienshanica - Osh to Taldyk, Kirg. - 2016.0529



Populus afghanica 'fastigiata' aff. –
Nookat, Kirg. 30 May 2016



Moluccella olgae –(Lamiaceae) South of Osh - 2016.0530



Moluccella olgae –(Lamiaceae) South of Osh - 2016.0530



Salvia Sclarea



Centaurea
depressa -





To Kyrgys-Ata Nature Reserve



Kyrgys-Ata Nature Reserve , Kirghizstan - 2016.0530



Primula matthioli - Kirgys-Ata -



Aquilegia atrovinosa - Kirgys-Ata -



Phlomoides oreophila - Kirgys-Ata





Dactylorhiza umbrosa - Kyrgyz-Ata Nature res. - 2016.0530



Dactylorhiza umbrosa - Kyrgyz-Ata Nature res. - 2016.0530



Phlomoides oreophila - Kyrgyz-Ata -



Primula pamirica, *Pedicularis rhinanthioides* - Kyrgys-Ata - 2016.0530



Primula pamirica, *Pedicularis rhinanthioides* - Kyrgys-Ata - 2016.0530



Codonopsis clematidea (Campanulaceae) - Kyrgyz-Ata -
2016 0530



Codonopsis clematidea (Campanulaceae) - Kyrgyz-Ata -
2016.0530



Codonopsis clematidea (Campanulaceae) - Kyrgyz-Ata - 2016.0530





Primula matthioli –
Kyrgyz-Ata - 2016.0530



Primula matthioli –
Kyrgyz-Ata - 2016.0530

Karatau Range

Ile-Alatau

Merke

Ala-Arca Nat. Res.

Too-Asuu Pass

Ala-Bel Pass

Aksu-Jabagli

Chichkan Gorge

Toktogul Lake

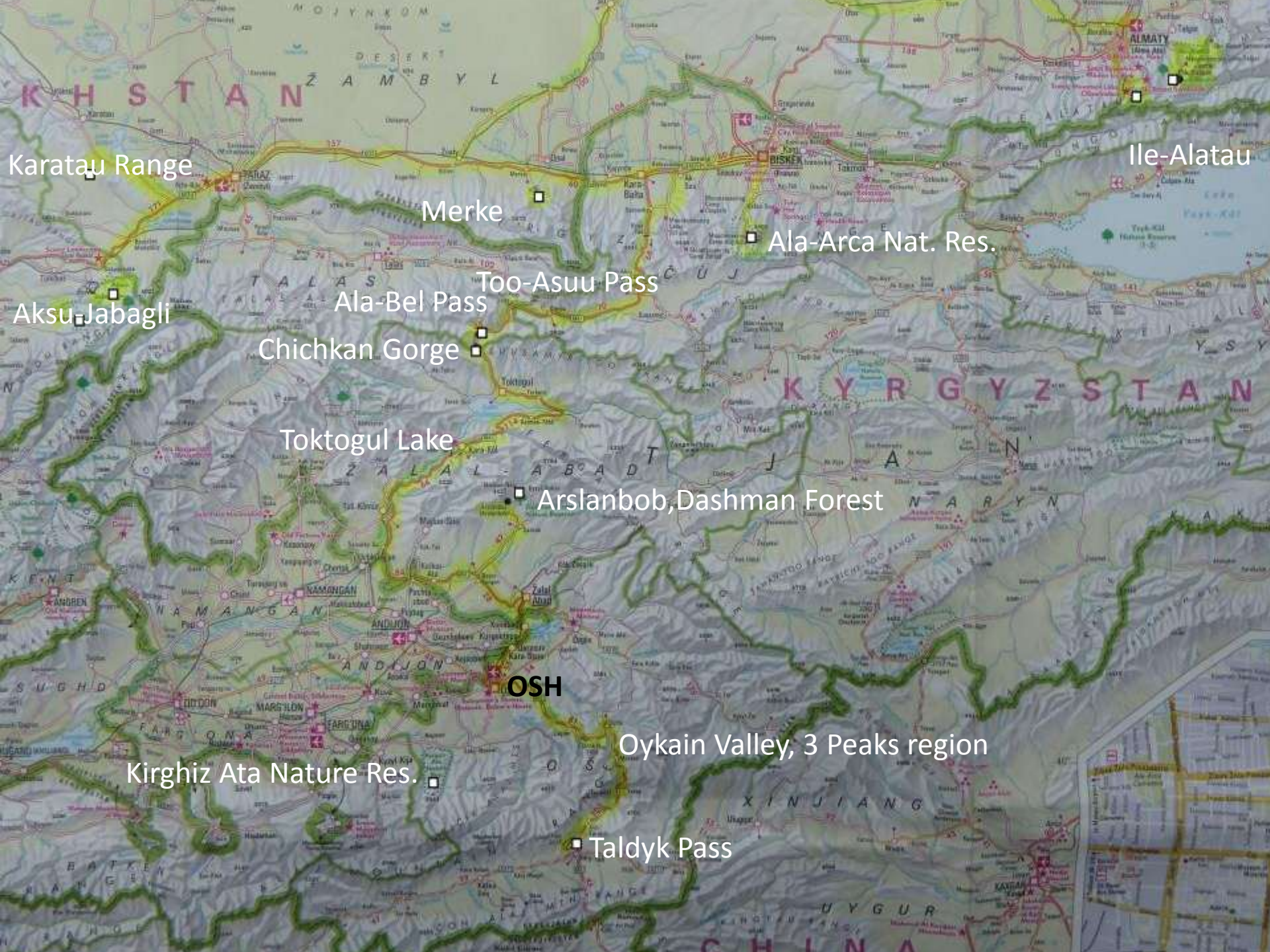
Arslanbob, Dashman Forest

OSH

Oykain Valley, 3 Peaks region

Kirghiz Ata Nature Res.

Taldyk Pass







Tien shan, seen from Dashman Forest, Arslanbob - 2016.0531











Juglans regia 275cm - Dashman Forest -



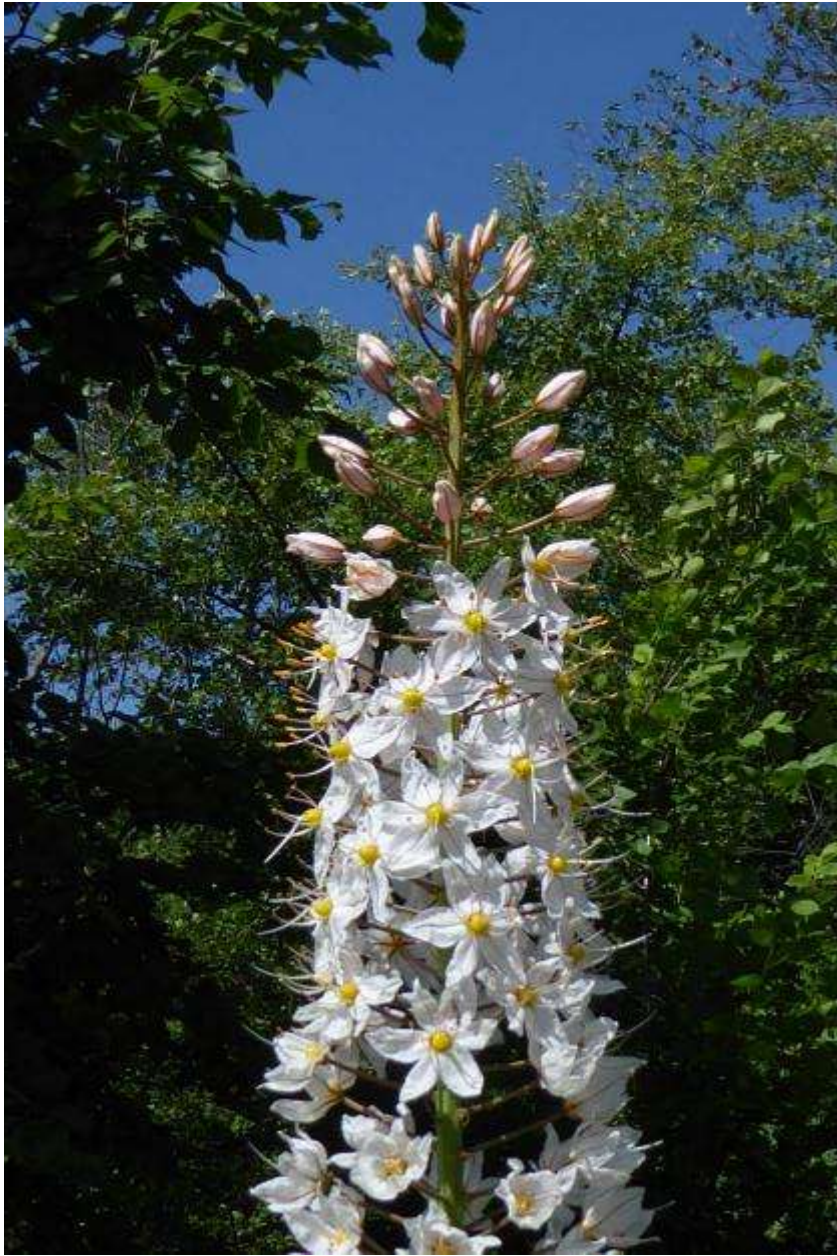
Juglans regia 275cm - Dashman Forest -



Eremurus fuscus & *robustus*, *Prangos pabularia* - Dashman Forest,



Eremurus fuscus & *robustus*, *Prangos pabularia* - Dashman Forest,



Eremurus fuscus & robustus, Prangos pabularia - Dashman Forest,





Dictamnus angustifolia, *Eremurus fuscus* - Dashman Forest, Arslanbob -



Dictamnus angustifolia, *Eremurus fuscus* - Dashman Forest, Arslanbob -



Dictamnus angustifolia, *Eremurus fuscus* - Dashman Forest, Arslanbob -



Astragalus sieversiana - Dashman Forest, Arslanbob - 2016.0531 ,



Astragalus sieversiana - Dashman Forest, Arslanbob - 2016.0531 ,



Astragalus sieversiana - Dashman Forest, Arslanbob - 2016.0531 ,



Aquilegia vicaria - Dashman Forest ,Arslanbob - 2016.0531 ,



Aquilegia vicaria - Dashman Forest ,Arslanbob - 2016.0531 ,



Perovskia scrophularifolia , with *Tamarix ramosissima* - road to Toktogul, Kirg. - 2016.0601 441



Perovskia scrophularifolia , with *Tamarix ramosissima* - road to Toktogul, Kirg. - 2016.0601 441



Eremurus sogdianus - road to Toktogul, Kirg. - 2016.0601



Eremurus sogdianus - road to Toktogul, Kirg. - 2016.0601



Delphinium semibarbatum, *Perovskia scrophularifolia* - road to Toktogul, Kirg. - 2016.0601



Delphinium semibarbatum - road to Toktogul, Kirg. - 2016.0601

Pistacia vera



Pistacia vera



Pistacia vera



Pistacia vera





Acer tataricum subsp. *semenovii* - before Toktogul Lake, Kirg. - 2016.0601



Acer tataricum subsp. *semenovii* - before Toktogul Lake, Kirg. - 2016.0601



Acer tataricum subsp. *semenovii* - before Toktogul Lake, Kirg. - 2016.0601



Fraxinus sogdiana (syn. *turkestanica*) - before Toktogul Lake, Kirg. -



Fraxinus sogdiana (syn. *turkestanica*) - before Toktogul Lake, Kirg. -



Fraxinus sogdiana (syn. *turkestanica*) - before Toktogul Lake, Kirg. -



Prunus mahaleb - before Toktogul Lake, Kirg. - 2016.0601



Prunus mahaleb - before Toktogul Lake, Kirg. - 2016.0601



Eremurus tianschanicus , *Eleagnus oxycarpus* - Toktogul Lake



Eremurus tianschanicus , *Eleagnus oxycarpus* - Toktogul Lake



Talas

© 2016 Cnes/Spot Image
US Dept of State-Geographer
Image Landsat
Image © 2016 CNES / Astrium





Abies sibirica - Chychkan, near Toktogul - 2016.0601





Populus talassica - Chychkan, Kirg. -



Populus talassica - Chychkan, Kirg. -



Euonymus semenovii - Chychkan,



Euonymus semenovii - Chychkan,



Bosa kekaniya

Juniperus sp., Abies sibirica - Chychkan, Kirg. -



Rosa kokanica -



Rosa kokanica -



3100m, Ala-Bel Pass, Kirg. -









Primula algida - 3100m, Ala-Bel Pass, Kirg. - 2016.0602



Viola altaica - 3100m, Ala-Bel Pass, Kirg. -







Tulipa dasystemon - 3100m, Ala-Bel Pass, Kirg. - 2016.0602



Cerastium cerastoides



Dracocephalum nutans



Myosotis asiatica



Chorispora macropoda



Ranunculus sp



Pedicularis rhinanthoides, Dactylorhiza umbrosa, Leontopodium -



Barbarea sp. - 3100m, Ala-Bel Pass



Gagea emarginata



Polygonum aff



Papaver croceum



Trollius altaicus



Trollius altaicus



Geranium saxatile









Paeonia hybrida - below Too-Asuu Pass,



Paeonia hybrida - below Too-Asuu Pass,



Paeonia hybrida - below Too-Asuu Pass,



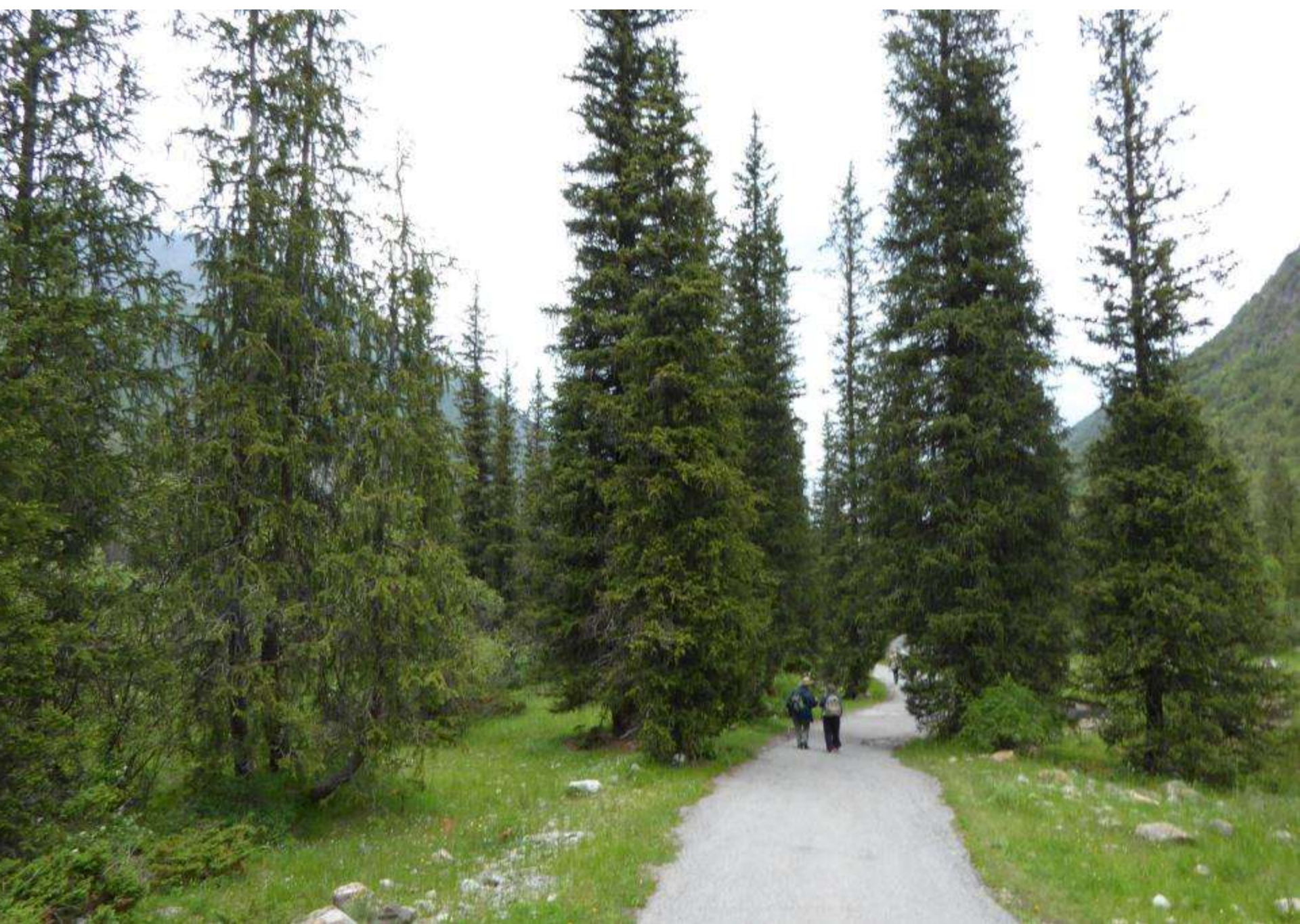
Verbascum songaricum - down from Too-Asuu Pass



Verbascum songaricum - down from Too-Asuu Pass

Ala-Archa N.P., Bichkek, Kyrgyzstan





Picea schrenkiana - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Picea schrenkiana - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Picea schrenkiana - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Picea schrenkiana (galls) - Ala-Archa N.P., Bichkek, Kirg -



Polemonium caeruleum - Ala-Archa N.P

Allium carolinianum - Ala-Archa N.P.,



Ixiolirion tataricum - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Lonicera hispida vs L. stenantha - Ala-Archa N.P., Bichkek, Kirg -



Lonicera stenantha vs *L. microphylla* (right) - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Lonicera tatarica (various forms) - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Lonicera tatarica (various forms) - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Myricaria germanica (tianshanica) - Ala-Archa N.P



Clematis alpina subsp. *sibirica* - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Clematis alpina subsp. *sibirica* - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Populus canescens aff. (fastigate form)
Ala-Archa N.P., Bichkek, Kirg -



Betula tianshanica - Ala-Archa N.P., Bichkek, Kirg -



Betula tianshanica - Ala-Archa N.P., Bichkek, Kirg -



Betula pendula - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Betula pendula - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Ulmus androssowii - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Ulmus androssowii - Ala-Archa N.P., Bichkek, Kirg - 2016.0603



Ulmus androssowii - Ala-Archa N.P., Bichkek, Kirg - 2016.0603

Bishkek, Kyrgyzstan





Ulmus pumila - Bichkek to Merki, Kazak. - 2016.0604

Karatau Range

Ile-Alatau

Merke

Ala-Arca Nat. Res.

Too-Asuu Pass

Ala-Bel Pass

Aksu-Jabagli

Chychkan Gorge

Toktogul Lake

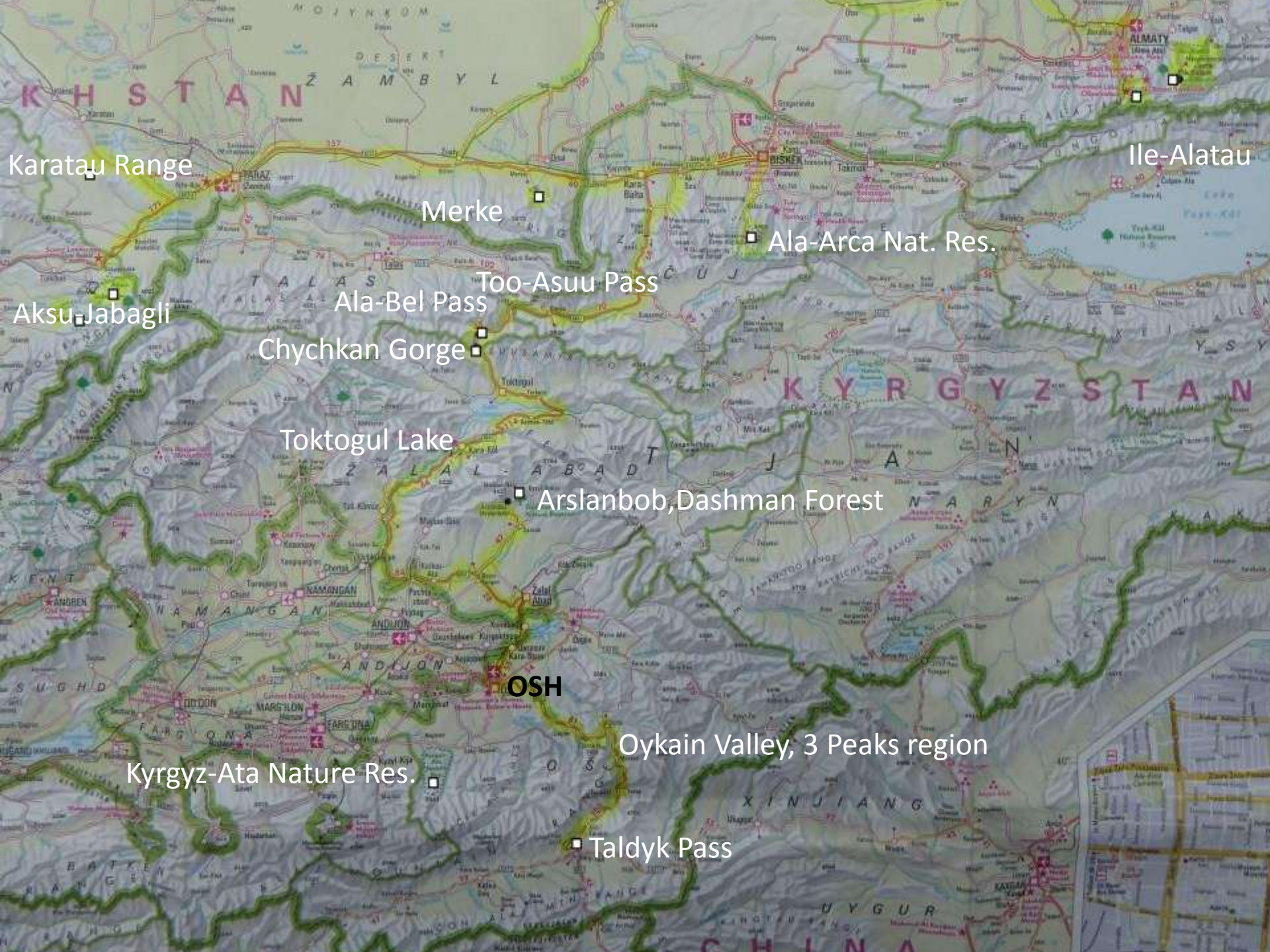
Arslanbob, Dashman Forest

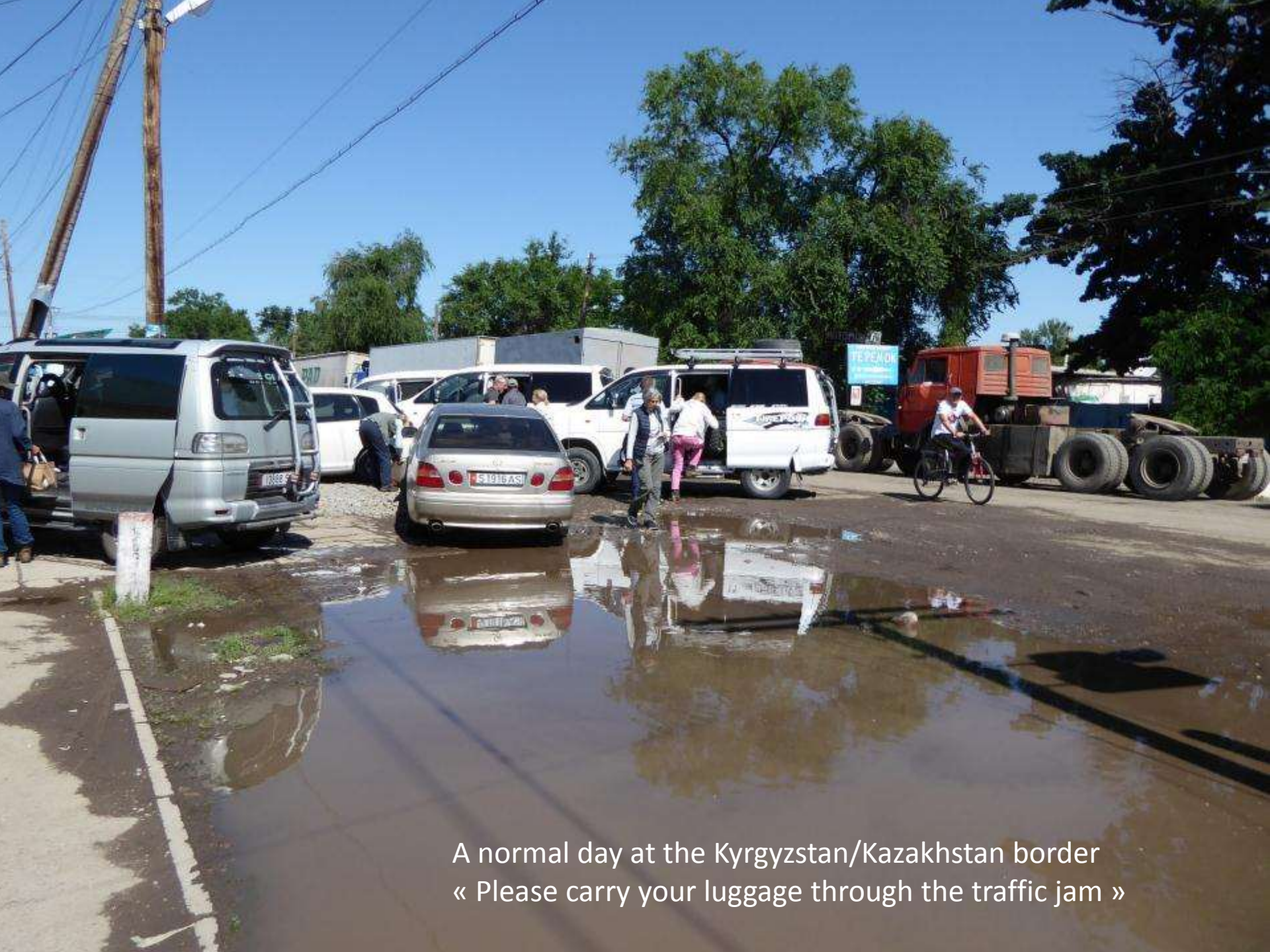
OSH

Oykain Valley, 3 Peaks region

Kyrgyz-Ata Nature Res.

Taldyk Pass





A normal day at the Kyrgyzstan/Kazakhstan border
« Please carry your luggage through the traffic jam »



Kazakhstan

Talas-Alatoo Mountain range seen from the
Kazakh plain











Karatau mountains, Kazakhstan .- 2016.0605



Hypericum scabrum -



Raphidophyton regelii -



Tragopogon marginifolius - Karatau



Phlomis regelii



Seda and Tragopogon sp.



Orobanche uralensis



Dianthus tetralepis



Allium inconspicuum, *A. caeruleum*



Rosa berberifolia (syn. *Hulthemia*) -



Acanthophyllum pungens -



Lagochilus platycalyx - Karatau mountains, Kazak.- 2016.0605



Tamarix ramosissima – Karatau mountains



Astragalus alopecias



Astragalus alopecias



Eleaagnus angustifolia



Eleaagnus angustifolia



Berkara valley, *Populus* sp. *Ulmus pumila* etc



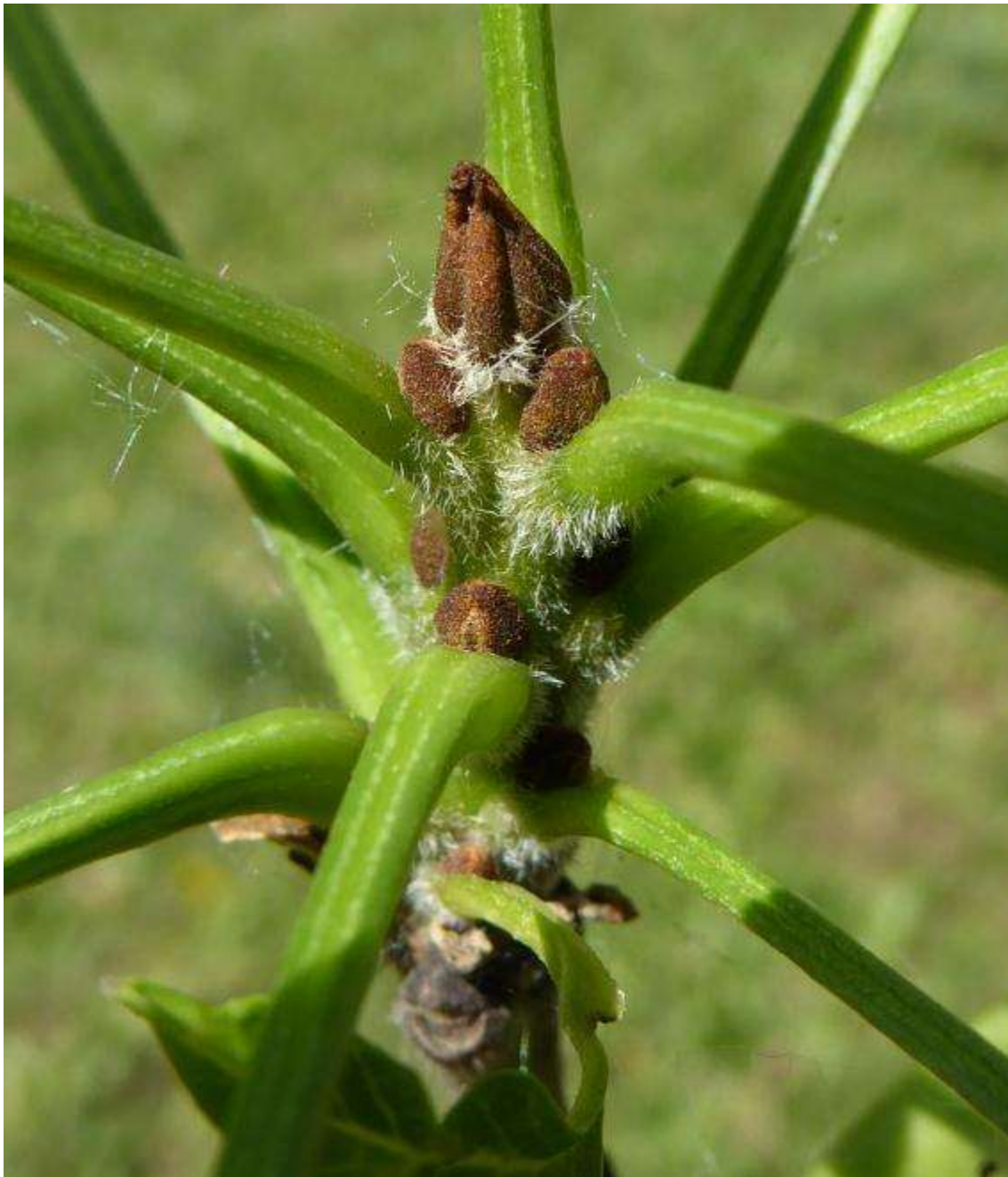
Berkara valley, *Populus* sp. *Ulmus pumila* etc



Fraxinus sogdiana (syn. *potamophylla*) - Berkara, Karatau Mountains,



Fraxinus sogdiana (syn. *potamophylla*) - Berkara, Karatau Mountains,



Fraxinus sogdiana (syn. *potamophylla*) - Berkara, Karatau Mountains,



Malus niedzwetzkiiana - Berkara, Karatau



Malus niedzwetzkiiana - Berkara, Karatau



Glaucium fimbriigerum - Karatau Mountains,



Glaucium fimbriigerum - Karatau Mountains,



Glaucium fimbriigerum - Karatau Mountains,



Papaver
croceum



Glaucium elegans - South of Osh - 2016.0530



Glaucium elegans - South of Osh - 2016.0530



Zabagly Guest house, Zabagly, Kazakhstan



Zabagly Guest house, Zabagly, Kazakhstan



Zabagly Guest house, Zabagly, Kazakhstan



Zabagly Guest house, Zabagly, Kazakhstan



Zabagly Guest house, Zabagly, Kazakhstan



Zabagly Guest house, Zabagly, Kazakhstan

Aksu-Zabagly National Park











Hypericum elongatum - Aksu-Zabagly, Kazak. - 2016.0606



Hypericum elongatum - Aksu-Zabagly, Kazak. - 2016.0606



Prangos pabularia - Aksu-Zabagly, Kazak. - 2016.0606



Prangos pabularia - Aksu-Zabagly, Kazak. - 2016.0606



Ferula penninervis - Aksu-Zabagly, Kazak. -



Linum olgae - Aksu-Zabagly, Kazak. - 2016.0606



Dactylorhiza umbrosa - Aksu-Zabagly,

Rosa kokanica



Rosa kokanica, *Rosa fedtschenkoana*





Morina kokanica (Caprifoliaceae) - Aksu-Zabagly,



Morina kokanica (Caprifoliaceae) - Aksu-Zabagly,



Veronica spuria , Iris sogdiana - Aksu-Zabagly, Kazak.



Hedisarum talassicum



Stachys betonicifolia - Aksu-Zabagl



Gentiana olivieri - Aksu-Zabagly, Kazak. - 2016.0606

Aksu Canyon







Ephedra equisetina - Aksu Canyon, Kazak.-2016.0607





Rosa nanothamnus
Aksu Canyon, Kazak.-2016.0607











Night train to Almaty, capital city of Kazakhstan

Kaskelen Nature Reserve and
Big Almaty lake, 2600m Ile-Alatau N. Park,



Kaskelen Nature Reserve and
Big Almaty lake, 2600m - Ile-Alatau N. Park,





Stachys betonicifolia (syn Betonica f.) - K



Aconitum leucostomum



Astragalus alpinus - Kaskelen Nat.Res., Almaty, KZ -



Aquilegia atrovinosa - Kaskelen Nat.Res., Almaty, KZ - 2016.0608



Aquilegia atrovinosa - Kaskelen Nat.Res., Almaty, KZ - 2016.0608











Ligularia macrophylla - Kaskelen Nat.Res., Almaty, KZ - 2016.0608



Ligularia macrophylla - Kaskelen Nat.Res., Almaty, KZ - 2016.0608



Ligularia macrophylla - Kaskelen Nat.Res., Almaty, KZ - 2016.0608



Ligularia macrophylla - Kaskelen Nat.Res., Almaty, KZ - 2016.0608



Ile-Alatau N.Park, 2800m , KZ-2016.0609



Juniperus pseudosabina - Ile-Alatau N.Park, KZ-



Rhodiola linearifolia - Ile-Alatau N.Park,



Viola altaica - Ile-Alatau N.Park, KZ-



Viola altaica



Viola biflora -



Viola rupestris



Viola acutifolia



Anemone narcissiflora (syn. *protracta*)



Trollius altaicus



Erigeron aurantiacus



Gentiana karelinii











Papaver croceum - Ile-Alatau N.Park, KZ-



The End