

JURAJ HOLČÍK, KAROL HENSEL,
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THE EURASIAN HUCHEN, HUCHO HUCHO

LARGEST SALMON OF THE WORLD



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Largest Salmon of the World

By

J. HOLČÍK, K. HENSEL, J. NIESLANIK and L. SKÁCEL

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“Once I caught a huchen just at noon. I overcome her and hauled her to the shallows. She lay there, quiet and shining, and as she breathed she shone out and dimmed time and again. The valley was majestic, the water roared, and I heard a voice saying: ‘What a beauty you are!’ Not a soul was there. It was me saying the words, overwhelmed by the beauty. Carefully removing the hook, I turned and released the huchen. She swam slowly through the shallow water among the boulders, looking back as though to see if I was in earnest, then came on deeper water, speeding up a little, and, feeling the depth below, she bolted, disappeared like lightning. To this day she tells this tale of me to her little ones.”

*Jan Werich, National Artist
(Mladý svět 1980, 22: 51)*

Preface

The need to gather available data on the Eurasien huchen – an important salmonid species – has been forced by a plain and, unfortunately, common fact of our times: the numbers and distribution of this biggest of salmonids have begun to decline and its range has begun to shrink. A seminar on the huchen – the European form of the species *Hucho hucho* – held in Žilina in February 1973 as a result of a suggestion of the Section for the Conservation of Fauna of the Slovak Zoological Society, indicated very clearly the sad situation. Data on the biology of the huchen are regrettably scarce despite several recent papers (Ivaška 1951, Svetina 1962, Prawocheński and Kolder 1968) with the aim of filling this gap. Supposing that without a thorough knowledge it is practically impossible to conserve any plant or animal species, the participants of the seminar concluded that the existing knowledge on the huchen should be compiled in an exhaustive monograph. The first such outline originated in 1977 under the authorship of J. Holčík, K. Hensel and L. Skácel, and was submitted as a research report to some of the central authorities. Even during the compilation of the report it became evident, however, that there is no difference between the huchen and its relative, the taimen. Consequently, we immediately began revising our first report, which took over three years. We have endeavoured to present not only a simple compilation, but also a critical analysis and synthesis as a basis for both subsequent scientific investigations and practical conservation measures. For this reason, several problems had to be tackled during the preparation of the monograph, in the form of separate scientific papers. In spite of the fact that our knowledge of the huchen has thus advanced considerably, it would be preposterous to believe that all problems associated with this species have been solved. On the contrary, we can only confirm Kanep's (1976) recent statement that the genus *Hucho* is still among the least known forms of this great and important salmonoid group.

Our monograph reflects the present state of knowledge of both the huchen and the taimen. But both forms were, and unfortunately still are, primarily the concern of fishermen, especially anglers, and only much less of ichthyologists and zoologists. That is why individual chapters of the present monograph are so unbalanced: for

example, data on the anatomy of the huchen are still fragmentary and lag behind those on economic importance and farming.

In this team work individual authors participated as follows: K. Hensel wrote Chapters 1, 4 and 7, compiled the maps showing the distribution (Figs. 17–21) and re-drew Figs. 7–12, J. Nieslanik and L. Skácel wrote the fundamentals to Part V and supplied some of the photographs and other documentation. J. Holčík wrote the whole Parts III and IV, Chapters 3, 6, 8 and 22; he cooperated with K. Hensel in working out Chapters 2 and 5, supplemented and compiled Part V, re-drew or compiled most of the illustrations, supervised the work of the team and finally edited the manuscript.

It is more than a pleasant duty of the authors, in particular the senior one, to extend cordial thanks to a wide circle of collaborators without whose help this work could not have been completed. They contributed to it by providing literature inaccessible to the authors, by submitting unpublished data, by providing some of the necessary computer time, by their valuable advice and discussions, or in various other ways. Their names are listed below in an alphabetical order, regardless of their titles, functions, or nationalities:

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Contents

<i>Preface</i>	vii
<i>List of Symbols and Abbreviations</i>	xiii

PART I – TAXONOMY, SYSTEMATICS AND EVOLUTION

1. Nomenclature	1
2. Taxonomy and Systematics	2
3. Origin, Evolution and Phylogeny	12
4. Vernacular Names	27
5. Morphology	30
6. Protein Specificity	40

PART II – DISTRIBUTION

7. Geographical Distribution	41
8. Habitat	56

PART III – BIONOMICS AND ECOLOGY

9. Reproduction and Development	61
10. Age and Growth	84
11. Trophic Ecology	107
12. Predation	119
13. Predators and Enemies	121
14. Population	122
15. Migration and Territory	126
16. Diseases, Parasites, Abnormalities and Injuries	129
17. Hardiness	133
18. Present Status	135

PART IV – UTILIZATION

19. Economic Importance and Exploitation	142
20. Protection and Management	149
21. Introduction and Acclimatization	153
21.1. Results of Experiments with Introduction and Acclimatization . . .	153
21.2. Principles of Huchen Introduction	166

PART V – FARMING

22. History	168
23. Huchen Farm	172
24. Technology of Parent Fish Breeding	177
25. Artificial Reproduction	180
26. Egg Incubation and Hatching	186
27. Rearing Young Huchen	188
28. Rearing Recruits	198
29. Sanitary Problems	200
30. Dispatch and Transport	202
<i>Epilogue</i>	<i>206</i>
<i>References</i>	<i>209</i>
<i>Index of Scientific Names</i>	<i>225</i>
<i>Index of Geographical Names</i>	<i>229</i>

List of Symbols and Abbreviations

<i>ad-C</i>	distance between adipose fin and caudal fin
<i>A</i>	anal fin
<i>A-C</i>	distance between base of anal and base of caudal fin
<i>BR</i>	branchiostegal rays
<i>C</i> (<i>C</i> ₁ , <i>C</i> ₂ , <i>C</i> ₃)	caudal fin (upper lobe, medial part and lower lobe of caudal fin, respectively)
<i>D</i>	dorsal fin
<i>Fl</i>	fork length (Smitt length)
<i>h</i>	minimum body depth (least depth of caudal peduncle)
<i>hA</i>	depth of anal fin
<i>hD</i>	depth of dorsal fin
<i>hc</i>	head depth (at nape)
<i>hmx</i>	depth of upper jaw
<i>H</i>	body depth (maximum body depth)
<i>io</i>	interorbital distance (skull width)
<i>K</i>	Fulton's coefficient of condition
<i>lc</i>	length of head
<i>ll.</i>	lateral line (pored scales)
<i>lmd</i>	lower jaw length
<i>lmx</i>	upper jaw length
<i>lpc</i>	length of caudal peduncle
<i>lA</i>	length of anal fin base
<i>lC</i> (<i>lC</i> ₁ , <i>lC</i> ₂ , <i>lC</i> ₃)	length of caudal fin (length of upper lobe, medial part and lower lobe of caudal fin, respectively)
<i>lD</i>	length of dorsal fin base
<i>lP</i>	length of pectoral fin
<i>lV</i>	length of ventral (pelvic) fin
<i>Oh</i>	horizontal diameter of eye
<i>pop</i>	preopercular distance
<i>poD</i>	postdorsal distance
<i>poO</i>	postorbital distance

<i>prO</i>	preorbital distance (snout length)
<i>pA</i>	preanal distance
<i>pD</i>	predorsal distance
<i>pV</i>	preventral distance
<i>P</i>	pectoral fin
<i>PC</i>	pyloric caeca
<i>P-V</i>	distance between pectoral and ventral fin
<i>rA</i>	rays in anal fin
<i>rD</i>	rays in dorsal fin
<i>rP</i>	rays in pectoral fin
<i>rV</i>	rays in ventral (pelvic) fin
<i>Sl</i>	standard length
<i>Sp.br.</i>	branchial spines (gill rakers)
<i>Squ.</i>	transverse rows of scales
<i>Squ. inf.</i>	scales below lateral line
<i>Squ. sup.</i>	scales above lateral line
<i>Tl</i>	total length
<i>TU</i>	temperature unit (day-degree)
<i>V</i>	ventral (pelvic) fin
<i>V-A</i>	distance between ventral and anal fin
<i>Vert.</i>	vertebrae
<i>w</i>	individual weight

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Index of Scientific Names

- Acanthocephala* 131
Acanthorhodeus macropterus 108, 112
Achlya 129
Acipenser
 baeri 111
 ruthenus 111
Acipenseridae 111
Actinopterygii 2
Aeromonas salmonicida 130
Alburnoides bipunctatus 110, 111, 124
Alburnus alburnus 110, 111
Alnus 74
Amphipoda 109
Anguilla anguilla 112
Anguillidae 112
Apatelia zonella 108
Araneidea 108
Arapaima gigas 90
Ardea cinerea 122
Argulus coregoni 132
Arthropoda 132
Aschelminthes 131
Asymphylogora 130
 imitans 131
 markewitschi 131
 tincae 131
Azygia
 lucii 131, 132
 robusta 131, 132

Bacterium salmonicida see
 Aeromonas salmonicida
Baëtis 108
Bagridae 112
Barbus
 barbus 110, 111, 119, 124
 meridionalis 111
 meridionalis petenyi 110, 124
Basanistes
 enodis 132
 huchonis 130, 132, 183
 woskoboinikovi 132
Brachymystax 3, 4, 8, 20, 23, 24, 69, 80, 84, 89
 lenok 3, 4, 20, 23, 26, 80, 81, 111, 114, 118, 140

Camallanus lacustris 131
Capillaria brevispicula 131
Carassius
 auratus 112
 carassius 112
Catlocarpio siamensis 90
Chilodonella cyprini 131
Chironomidae 107, 108
Chondrostoma
 nasus 73, 109–113, 119, 124, 194
 polylepis 110, 111, 120, 165
Cladocera 109
Clupea harengus pallasii 121
Cobitidae 112
Cobitis taenia 112
Coleoptera 113
Copepoda 109
Coregonidae 4
Coregoninae 4, 113
Coregonus
 autumnalis 111
 autumnalis migratorius 120, 127
 lavaretus 111, 160
 lavaretus pidschian 113
 muksun 111, 120
 sardinella 111, 113, 120, 127
 tugun 111, 113, 120
 ussuriensis 111
Cottidae 112

- Cottus* 113
 gobio 110, 112, 116
 poecilopus 110, 112
 sibiricus 112
Cristivomer see *Salvelinus*
Cucullanus truttiae 131
Cyathocephalus truncatus 131
Cyprinidae 110, 111
Cyprinus carpio 112
Cystidicola farionis 130, 131
Cystidicoloides
 ephemeridarum 131
Cystobranchus respirans 131

Decapoda 109
Diphyllbothrium strictum 131
Diptera 108
Dixinae 107, 108

Ecdyonurus arsenjevi 108
Echinorhynchus
 cryophilus 131
 salmonis 131
Eleginus gracilis 121
Eleotridae 112
Eosalmo driftwoodensis 21
Emphemerella
 basalis 108
 lenoki 108
 levanidovae 108
 taeniata 108
Ephemeroptera 107, 108, 113
Epitomyia see *Salmo*
Erythroculter mongolicus 112, 114
Esocidae 111
Esox
 lucius 110, 111, 116, 118, 120
 reicherti 111
Eubothrium
 crassum 131
 salvelini 131
Eutamias 114
Euteleostei 2

Gadidae 112
Gammarus 107, 196
 fossarum 108
Gasterosteidae 112
Gasterosteus aculeatus 112
Gnathostomata 2
Gobio 110, 113
 gobio 110, 111, 124
 gobio cynocephalus 108, 109, 118
Gymnocephalus cernuus 112, 113

Hemibarbus labeo 111
Hemiculter leuciscus 112
Hirudinea 131
Huch Germanorum 1
Hucho 2, 4, 5–8, 12, 13, 15, 16, 19–24, 27, 39,
 42, 61, 80, 88, 89, 131, 146
 bleekeri 6, 7, 22–24, 29, 42
 hucho 1, 3, 5–14, 18–27, 30, 35, 39–41, 51,
 56–59, 61–63, 69–71, 73, 74, 76, 80, 81, 84,
 88–90, 106, 107, 110, 111, 113, 114, 116–123,
 126, 128, 134, 140, 141
 hucho hucho 5, 10–12, 19, 23, 26–28, 34–36,
 40–43, 62, 85, 90, 92, 96–102, 107, 111, 112,
 132
 hucho taimen 1, 3, 5, 10–13, 19, 23–26, 29, 34,
 36, 38, 40–42, 53, 62, 86, 91, 92, 96–102, 107,
 111, 112, 122, 132
 ishikawai 5, 7, 8, 17, 22, 23, 25, 29, 42
 taimen 10, 11, 13, 14, 18, 24, 140
 perryi 3, 6–8, 10, 13, 16, 17, 20–27, 29–36,
 38, 89, 121
Huchoninae 4
Huchonini 2, 4
Hypomessus olidus 121
Hysterothylacium aduncum 131

Ichthyobodo necatrix 129–131
Ichthyophthirius
 multifiliis 130, 131
Insecta 108

Lemmus 114, 116
Lethenteron japonicum 111
Leucaspis delineatus 111, 116
Leuciscus
 cephalus 110, 111, 119, 124
 idus 111, 120
 leuciscus 110, 111, 113
 leuciscus baicalensis 113
 souffia 111
 waleckii 111
Limnotrachelobdella
 taimeni 131
Lota lota 110, 112, 116, 118, 120

Mesocottus haitej 108, 112
Myxobacterium 130
Myxosoma cerebralis 131, 132

Nanophyetus schikobalovi 131, 132
Natrix maura 122

- Nematocera* 108
Neoechinorhynchus rutili 131
Neognathi 2

Oncorhynchus 4, 20, 25, 31, 69, 81, 84
 gorbuscha 111, 113
 keta 73, 109, 111, 113, 115, 118
 kisutch 165
 tschawytscha 89, 165
Ondatra zibethica 115
Orientocreadium pseudobagri 131
Orthoclaadiinae 107, 108
Orthrias barbatulus 112, 113, 116
 barbatulus toni 108
Osmerus mordax dentex 121
Osteichthyes 2

Pangasianodon gigas 89
Paracanthocephalus tenuirostris 131
Paracottus kessleri 112
Parahucho 8, 22
Perca fluviatilis 112, 120
Percottus glehni 112
Percidae 112
Petromyzontidae 111
Phoxinus lagowskii 108, 109, 111, 113, 118
 phoxinus 108, 109, 111, 113, 116
Pisces 2, 108, 113
Platyhelminthes 131
Plecoptera 113
Pomphorhynchus laevis 131
Procleon 108
Protacanthopterygii 2
Protohucho 24
Protozoa 131
Pseudobagrus fulvidraco 112
Pseudocapillaria salvelini 131
Pseudorasbora parva 111, 118
Pungitius pungitius 10, 112
 pungitius sinensis 108

Raphidascaris acus 130, 131
Rhabdochona denudata 130, 131
Rhitrogena unicolor 108
Rhodeus sericeus 109, 112
Rutilus pigus 124
 rutilus 110, 111, 113, 120, 124

Salmincola stellata 132
Salmo 3, 4, 7, 13, 20, 25, 35, 39, 69, 81, 84
 fluviatilis 1
 gairdneri 89, 165
 hucho 1, 2, 8
 (*Epitomynis*) *hucho* 1
 (*Hucho*) *hucho* 1
 ischchan 89
 mykiss 89
 (*Salvelinus*) *lossos* 1
Schiefermülleri 1
 taimen 1, 10
 trutta 39
 trutta caspius 89
 trutta labrax 89
 trutta trutta 89, 113
 trutta m. fario 3, 70, 89, 111, 116, 119
 trutta m. lacustris 89, 160
 salar 13, 89, 111, 113, 154
Salmonidae 2, 4, 19, 21, 22, 39, 110, 111, 153
Salmoniformes 2
Salmoninae 1, 2, 4, 19, 20, 70, 81, 84, 113
Salmonoidea 2, 4
Salmonoidei 2
Salmothymus 4
Salvelinus 3, 4, 19–22, 25, 39, 40, 69, 80, 84, 111
 alpinus 89
 alpinus alpinus 80
 alpinus oquassa 80
 (*Cristivomer*) *namaycush* 4, 39, 40, 80, 89
 confluentus 89
 fontinalis 3, 80, 89
 (*Hucho*) *taimen* 1
 malma 80
Saurogobio 111
Sanguinicola 131
Saprolegnia 129
Sciurus 114
Scolex pleuronectis 131
Silurus glanis 89, 128
Smilodonichthys rastrosus 21
Spirogyra 107
Stenodus leucichthys 89, 111
 leucichthys nelma 118, 122, 144

Taimenobdella amurensis 131
Teleostei 2
Tetraonchus huchonis 131
 skrjabini 131
 spasskyi 131
Thymallidae 4
Thymallinae 4, 113
Thymallus 35
 baicalensis 71, 111, 118

thymallus 56, 111, 113, 116
thymallus arcticus 39, 116, 128
Triaenophorus nodulosus 131
Trichoptera 107, 108, 196
Trutta
 fluviatilis altera 1
 piscinaria 1
Tubifex 196, 197

Vertebrata 2
Vimba 112, 113
Xenocypris macrolepis 111
Zoarces viviparus elongatus 121

Index of Geographical Names

Aare r. 52, 159
Abakan r. 54
Ach r. 110
Adrag r. 55
Adych r. 55
Africa 23, 158
Ager r. 45
Akhtaranda r. 55
Alba Julia 49
Albania 56
Aldan r. 55, 74, 95
Alm r. 46
Alps 24, 41
Altai Mts. 41, 74
Altmühl r. 43, 44
Alz r. 45, 94, 100
Ammer r. 45, 62, 94, 120
Amper r. 44, 45, 94
Amur r. 5, 13, 18, 24–26, 36, 41, 42, 52, 55, 62, 68, 73–75, 80, 86, 87, 91, 95, 100, 102, 104, 105, 107, 109, 112–115, 119, 127, 132, 140, 145, 146, 148, 158
Anabar r. 12, 17, 54, 57, 62, 67, 91, 95, 116
Angara r. 11, 16, 19, 36, 54, 59, 62, 67, 68, 72, 74, 75, 89, 91, 95, 99, 100, 104, 106, 123, 125, 128, 140, 145, 148
Angaris 16
Angern 46
Anička 155
Antarctica 23
Apshitsa r. 49
Arctic Ocean *see* Ocean
Arga-Sala r. 55
Argeş r. 50, 99, 136

Argun' r. 55
Asia 16, 41, 100
Atlantic Ocean *see* Ocean
Augsburg 43
Augst 160
Aurach r. 45, 94, 100
Australia 23
Austria 43, 45, 46, 48, 72, 75, 137, 139, 142, 145, 148, 150, 152, 156, 159, 160, 169, 172, 182, 195
Lower Austria 45, 150
Upper Austria 45, 150

Babia Góra Mts. 162
Bachleithen 169
Bad Tölz 44
Baden-Württemberg 150
Baikal *see* Lake Baikal
Baikal Subregion 42
Bakhta r. 54
Baldzh r. 55
Baltic Basin 24
Bambuika r. 55
Banská Bystrica 48, 132, 171
Barancha r. 52
Barda 52
Bardejov 155
Barents Sea 41, 42
Barnaul r. 50
Basel 160
Bavaria 44, 130, 150
Upper Bavaria 43
Bay,
Khatanga 56
Nyiskii 7, 121
Vladimir 6
Bečva r. 46, 156

r. – river, res. – reservoir, s. – stream, Mts. – mountains.

- Rožňovská Bečva 156
 Vsetínska Bečva 156
 Bednja s. 48
 Beke r. 55
 Belá r. 47, 72, 135
 Bělá s. 157
 Belaya r. 26, 52
 Belgium 142, 158, 161
 Belgrade 49
 Berezniki 52
 Bereznitsa s. 51, 76
 Berezovaya r. 52
 Berounka r. 51, 158
 Bertsia r. 54
 Bešeňová 71, 85
 Bicaz r. 50, 59
 Bicaz res. 50, 99
 Biela Orava *see* Orava
 Biely Potok 47
 Bii-Khem r. 54
 Biosćica s. 49
 Bir r. 109, 119
 Bistra r. 48, 49
 Bistrica r. 49
 Bistrița r. 50, 99
 Biya r. 53
 Black Sea 13, 41, 42
 Blatnický potok s. 156
 Bludov 45
 Bohemia 156
 Bohemian Forest *see* Šumava
 Bohemian-Moravian Highland 41
 Bohinja r. 49
 Bol'shaya r. 54
 Bosna r. 49, 151
 Bratislava 43, 134, 151, 170
 Bratsk 145, 148
 Bratsk res. 54, 59, 95, 104, 128, 140
 Bránecký potok s. 46, 156
 Brezno 48, 145
 Brillenhöhle 19
 Brno 59
 Broumov 158
 Brusturanka s. 127
 Bucovina 64, 67, 68, 148
 Bukhtarma r. 53
 Bukhtarma res. 53
 Budapest 43
 Budatín 168
 Bug r. 51
 Bulgaria, People's Republic of 158
 Buština 170
 Buzăul r. 50
 Bystrets s. 51, 76
 Bytča 134
 Canada 52, 142, 158, 165
 Cap Rokko 6
 Carinthia 116, 150
 Carpathian Mts. (Carpathians) 17, 24, 41
 Carpatho-Ukraine *see* Transcarpathian Region of Ukraine
 Caspian Sea 42
 Celje 49
 Central Atlas Mts. 161
 Central Siberian Plateau 41
 Cerna r. 50, 136
 Chang-jiang r. 67
 Cheremosh r. 9, 19, 50, 75, 76, 94, 115, 123, 124
 China, People's Republic of 62, 75, 148
 Chita 148
 Chona r. 55
 Chulym r. 53
 Chusovaya r. 52
 Chvojnický potok s. 156
 Čimpulung 50
 Circumpolar Subregion 42
 Cozla 48
 Cracow 162
 Crasna r. 48
 Crișul r. 49
 Crișul Alb r. 49
 Crișul Negru r. 49
 Crișul Repede r. 49
 Croatia 150
 Czadeczká s. 47
 Czarci Jarz 162
 Czechoslovakia, Czechoslovak Socialist Republic (ČSSR) 64, 90, 93, 99, 118, 134, 136, 137, 139, 142, 149–151, 154, 155, 158, 160–162, 164–166, 168–173, 180, 190, 194, 204
 Čeotina 49
 Černý potok s. 157
 Český Krumlov 157, 158
 Český Těšín 156
 Čierna Orava *see* Orava
 Čiernanka s. 47, 72, 155
 Čierny Váh *see* Váh
 Čingov 154
 Čirč 124
 ČSSR *see* Czechoslovakia
 Čtyřdvořský potok s. 156
 Čurilovská skala Rock 128
 Dabar s. 49
 Daďu r. 7

- Daierga 145
 Danube r. 5, 8–10, 14, 15, 17, 19, 24, 27, 41–43, 45, 46, 49, 51, 56, 59, 62, 72, 85–87, 94, 99, 100, 105, 109, 134, 136, 144, 145, 169
 Danube Delta 43, 51, 56
 Darkhat Basin 54
 D'Azrou 161
 Delger Mörön r. 54
 Deligny s. 165
 Delyatyn 50
 Demänová 171
 Dembronia s. 51
 Denham 159
 Denmark 142, 152, 158
 Desná r. 46
 Dîmbovița r. 50
 Dinaric Alps 41
 Dniester r. 13
 Doamnei r. 50
 Dobra r. 49, 94, 122, 123, 125
 Dobrinja s. 49
 Dobšice 157
 Dolný Kubín 145, 170
 Don r. 13
 Dorna r. 50
 Doubs r. 52
 Douro *see* Duero
 Drau *see* Drava
 Drava r. 46, 48, 62, 72–74, 85–87, 90, 94, 100, 105, 110, 116, 135, 139, 145, 147, 151
 Drava res. 59
 Dravinja s. 48
 Driekyňa *see* Drienka
 Drienka s. 48
 Drina r. 49, 85, 86, 145
 Drinjača r. 49
 Drwęca r. 51, 162
 Dubinino 125
 Dubinné 155
 Dubná Skala 77, 171, 180, 181, 183, 186, 187, 196
 Dubová 139
 Duero r. 52, 164
 Dunajec r. 51, 85, 90, 94, 100, 110, 114, 115, 150, 151, 154, 162
 Dyje r. 46, 157
 Dzhida r. 54
 Dzhugdzhur Mts. 41
 Earth 20, 23
 Eastern Asian Subregion 42
 Eastern European Flatland 41
 Elabuga 145, 146
 Elbe *see* Labe
 England 159
 Enisei r. 11, 16, 25, 42, 52, 55–57, 59, 62, 68, 86, 91, 95, 104–106, 120, 144, 147, 148
 Enisei Delta 54
 Enns r. 45, 86, 94, 139
 Erholz s. 160
 Erlau r. 45, 169
 Eurasia 23, 140
 Euro-Mediterranean Subregion 42
 Europe 18, 19, 74, 135, 148, 158
 Făleiceni 50
 Far East 62
 Federal Republic of Germany *see* Germany
 Feistritz s. 48
 Fellate r. 52, 161
 Finland 142, 152, 158
 Fojnica s. 49
 France 119, 150, 158, 159, 163
 Freising 44
 Fribourg 160, 161
 Frolikha Lake *see* Lake Frolikha
 Frolikha r. 11, 16, 54, 74–76, 95
 Gail r. 48
 Gánovce 154
 Gdańsk 142
 German Democratic Republic (GDR) 158
 Germany, Federal Republic of (FRG) 137, 139, 150, 152, 158, 171
 Gígú *see* Véd Gígú
 Glina s. 49
 Gondwana 23
 Goričan 49
 Gostović s. 49
 Govorevo 89
 Govorlitskaya Yama 124
 Görtzschach s. 49
 Great Enisei *see* Bii-Khem
 Great Lakes 165
 Greifenstein 85
 Grein 85
 Grosse Ache r. 45
 Grosse Mühl r. 45
 Gruyère 160
 Guanxian 6
 Gulf of Peter the Great 24, 25
 Gurk s. 48
 Gydansk Peninsula 41
 Handlová 170
 Handlovský potok s. 156
 Hedsor 159

- Hiadeľský potok s. 48
 Himalayas 24
 Hlohovec 47
 Hoang-ho r. 25
 Hodonín 46
 Hohenmaunten s. 48
 Hokkaido 7, 8
 Holarctic Region 42
 Honshu 7
 Hornád r. 49, 112, 120, 134, 154, 155
 Hradec Králové 158
 Hribski s. 49
 Hron r. 48, 86, 87, 99, 100, 104, 130, 133, 136, 139, 145, 171
 Hruštinka s. 72
 Hungary, Hungarian People's Republic 155
 Hutná *see* Ľubietovský potok
 Hynčice 158

 Iacobeni 50
 Ialomița r. 50, 136
 Ibar r. 50
 Igirma r. 54
 Ilava 134
 Ilidža 169
 Ilim r. 54, 59, 140
 Iller r. 43, 86, 94, 136
 Iltsia s. 51, 76
 Ilvele s. 49
 Ilych r. 53, 89, 113, 115
 Ilz r. 45
 Indalsälven r. 52
 Indalsälven res. 52, 164
 Indian subcontinent 23
 Indigirka r. 52
 Ingoda r. 55
 Inn r. 45, 86, 94, 105, 136
 Innokentievka 86
 Inzigskofen 19
 Ipeľ r. 134
 Ipoltica s. 47
 Ireeka r. 54
 Irkutsk r. 54
 Irkutsk res. 54, 59, 118
 Iron Gate 24, 43, 56
 Irtysh r. 53
 Isar r. 44, 85, 94, 100, 120, 134, 136
 Isarkanal 44
 Iset' r. 53
 Israel 158
 Iyus r.
 Belyi Iyus 53
 Chernyi Iyus 53

 Jablunkov 56, 171, 180
 Jánošíkovský potok s. 72
 Jiul r. 50
 Judenburg 145
 Jurinský weir 156

 Kadaň 157
 Kaistenbach 160
 Ka-Khem r. 54
 Kakva r. 54
 Kalinj s. 49
 Kalten r. 45
 Kama r. 5, 16, 19, 52, 68, 73, 86, 91, 102, 104, 115, 123, 124, 127, 140, 148
 Kama res. 52
 Kamenice r. 158
 Kamniška Bistrica s. 49
 Kamp r. 45
 Kara Sea 41, 42
 Karlova Pláň 157
 Karlovec *see* Karlova Pláň
 Kasidolska Rijeka r. 49
 Kel'tma r.
 Severnaya Kel'tma 52
 Yuzhnaya Kel'tma 52
 Kezhma-Dubinskaya r. 59
 Khalkhin r. 55
 Khangai Mts. 41
 Khataika r. 42, 54, 86
 Khatanga Bay *see* Bay
 Khatanga Delta 56
 Khatanga r. 11, 17, 54, 62, 88, 113, 123, 140
 Khemchik r. 54
 Khentei Mts. 41
 Kherlen r. 55
 Kheta r. 54, 113, 127
 Khoit Terkhiin r. 54
 Khor r. 55, 102, 103, 107, 109, 113, 115, 118
 Khubsugul *see* Lake Khövsgöl
 Kichera r. 54
 Kirchberg 145
 Kirenga r. 55, 95
 Kisva *see* Kosovskaya
 Klášterec nad Ohří 46, 157
 Kláštor pod Znievom 37, 87, 90, 92, 102, 145, 169–171, 180, 194, 196
 Klíčava res. 51, 94, 133, 158
 Klíčava s. 51
 Kobra r. 54, 86
 Kochelsee Lake *see* Lake Kochelsee
 Koiva r. 52
 Kolchina r. 52
 Kolpashevo 53

Kol'va r. 52
 Konchenga r. 54
 Korea 5, 25, 26
 Kosa r. 52
 Kosovskaya r. 48, 49
 Kos'va r. 52
 Košice 134, 154, 155
 Košťany 71, 85, 86
 Kotui r. 54, 86, 88, 128
 Kotuikan r. 54, 128
 Kōrōs r. *see* Crişul
 Kráfova Lehota 71
 Kralovany 88, 124, 134, 145
 Kranj 49
 Krapina s. 49
 Krásna nad Hornádom 49, 155
 Krasnoyarsk 54, 86
 Krasnoyarsk res. 59, 140, 148
 Krems r. 45
 Krivá 85
 Krivaya s. 49
 Krka r. 49, 74
 Kroměříž 46
 Kuchchugui Khan 120
 Kuibyshev res. 52
 Kukozara r. 52
 Kunashir 7
 Kunming 7
 Kupa r. 49, 94, 97, 122, 123, 125, 145
 Kupčina s. 49
 Kureika r. 54
 Kurile Islands *see* Kuriles
 Kuriles 25
 Kusa r. 52
 Kvačianka s. 37, 47, 72, 74
 Kysak 154
 Kysam 89
 Kysuca r. 47, 48, 72, 155
 Kyzyl-Khem r. 54

 Laaber r. 44
 Labe r. 51, 109, 157, 158
 La Coruña 52, 164
 Lac Deligny *see* Lake Deligny
 Lacul Roşu *see* Lake Lacul Roşu
 Lacul Vidraru *see* Vidraru res.
 Lajta *see* Leitha
 Lake,
 Ammersee 44
 Athabaska 89
 Ayan 54
 Baikal 19, 36, 54, 59, 71, 95, 122, 147
 Balaton 59

Bol'shoe Toko 55
 Buir 55
 Chiemsee 45
 Dalai 55
 Deligny 165
 Dood Cagaan 54
 Frolikha 54, 95
 Khövsgöl (Khubsugul) 54
 Kochelsee 44
 Kulinda 54, 95
 Lacul Roşu 50
 Mandeville 166
 Neusiedler See 59
 Ögii 54
 Oron 55
 Perolles 160
 Rossgrund 48
 Saint Louis 165
 Schiffenen 160
 Snezhinskoe 54
 Targan 54
 Teletskoe 53
 Terkhiin Cagaan 54
 Udył' 55
 Yalpukh 43, 51, 56
 Zaisan 53
 Zalatar 59
 Lakes,
 Baunt 148
 Charsk 55
 Great Lakes *see* Great Lakes
 Mocharsk 54
 Noril'sk 54
 Laptev Sea 42, 56
 Lapuşna s. 49
 Lašva s. 49
 Laufenberg 160
 Laurasia 23, 24
 Lautereck 19
 Lavant s. 48
 Lech r. 43, 85, 94, 105, 136
 Lednice 46
 Leitha r. 46
 Lena r. 13, 18, 19, 36, 42, 55, 57, 62, 74, 89, 95,
 100, 101, 104, 106, 115, 120, 123, 127, 128,
 145, 147, 148
 Lena Delta 56
 Lenggries 44, 85
 Leon 164
 Lepenica s. 49
 Lesse r. 52, 162
 Liao-ho r. 25
 Lienz 145

- Lim r. 49, 56
 Linz 43, 85
 Lipnica s. 47
 Liptovský Hrádok 135
 Liptovský Mikuláš 46, 47
 Little Enisei *see* Ka-Khem
 Ljubinja s. 49
 Ljubljana 49, 169
 Ljubljana r. 49, 74, 88, 90, 99, 122, 123, 125, 126, 130, 145, 151, 169
 Ljubno 49
 Loisach r. 44, 85, 94
 Łopuszna 162
 Lopva r. 52
 Lotru r. 50
 Loz'va r. 53, 95, 100
 Ľubietovský potok s. 48
 Lubija r. 49
 Lubochnianka s. 47
 Lupča 71
 Lupčianka s. 47, 72, 74
 Lupčica s. 48, 171
 Ludovy s. 51
 Lup'ya r. 52
 Luxemburg 152
 Lyalya r. 54
 Lyampishka r. 55

 Maas *see* Meuse
 Madrid 164
 Madunice 47
 Maia r. 55
 Malá Lodina 49, 154
 Malo Grabno s. 49
 Malše r. 51
 Malšovice 158
 Malý Čepčín 155
 Malyi Ik r. 52
 Mana r. 54
 Mangfall r. 45
 Mara r. 53
 March *see* Morava
 Marchegg 46
 Margecany 49, 155
 Maribor 48
 Maritime Region 6
 Martin 47, 72, 85, 120, 136, 138, 145, 157, 171, 180, 193, 196
 Mašovický potok s. 46
 Mauthbrücken 147
 Melk r. 45, 85, 169
 Melmysa r. 52
 Meuse r. 52, 162

 Miass r. 53
 Miljacka s. 49
 Mokranska Miljacka s. 49
 Min r. 7
 Misoč s. 49
 Moisei 48
 Moldova s. 50
 Möll r. 48
 Moloda r. 55
 Molodo r. 128
 Mongolia 56, 88, 148
 Montreal 165
 Morava r. 46, 136
 Moravia 150, 156, 170
 Moravice r. 51, 157
 Morioka 7
 Morocco 52, 99, 142, 158, 161
 Moškovec 47
 Moštenický potok (Moštenica) s. 48
 Mühlendorf 85
 Mukhtaryma r. 55
 Multenia 50
 Munich 44, 134
 Mur *see* Mura
 Mura r. 48, 85, 112, 145
 Muráň r. 156
 Murau 145
 Mureș r. 49, 136
 Mutnianska s. 47, 72, 74, 75, 107

 Naab r. 44
 Narew r. 51
 Neagra r. 50
 Nechanice 157
 Nekekit r. 55
 Nercha r. 55
 Neresnica r. 48
 Neteča s. 48
 Neustadt 43
 Niaza r. 52
 Nisa r. 158
 Nitra r. 48, 155, 156
 Nitrianske Rudno res. 48, 59, 156
 Nitrica s. 48, 59, 156
 Nizhnaya Tunguska *see* Tunguska
 Nizhne-Ilimsk 148
 North America 23, 158, 165
 Northern Dvina r. 52
 Northern German Basin 24
 Northern Hemisphere 21
 Northern Siberian Lowland 41
 Novăț s. 48
 Nové Mesto nad Váhom 145

- Novoil'inovka 145
 Nowy Targ 162
 Nuremberg 19
 Nyiskii Bay *see* Bay
 Nysa Kłodzka r. 51, 162
 Nyuya r. 55

 Ob' r. 10, 15, 24, 42, 53, 54
 Ob' Delta 53
 Ocean, Atlantic 13, 41
 Arctic 5, 41, 112
 Pacific 7, 42
 World's 21, 23, 24, 27
 Oceanum Glaciale 10
 Odra (Oder) r., Baltic Sea drainage 51, 157, 158, 162, 169
 Odra r., Sava river system 49
 Ogogut r. 120
 Ohe r.
 Mitternacher Ohe 45
 Schlossauer Ohe 44
 Ohře r. 51, 157
 Okunaika r. 55
 Olekma r. 55
 Olenek r. 12, 13, 17, 42, 54, 57, 95, 99, 101, 128
 Oliwia 162
 Olomouc 46
 Olsztyn 162
 Olše r. 51, 156
 Oltenia 50
 Oltul r. 50, 136
 Omoloi r. 42, 55
 Onon r. 55
 Opava r. 52
 Orava 168
 Orava r. 9, 14, 36, 47, 60, 62, 69, 71, 72, 74, 75, 78, 85, 90, 94, 99, 100, 104, 105, 107, 116, 127, 134, 136, 138, 139, 144, 145, 152, 168–170
 Biela Orava 47, 60, 107
 Čierna Orava 47, 137, 162
 Orava res. 47, 59, 64
 Oravica r. 47, 72, 74
 Oravský Podzámok 85, 127, 145, 170, 171
 Orkhon r. 54
 Orlice r. 158
 Osjek 48
 Otava r. 51, 157

 Pacific Ocean *see* Ocean
 Palaearctic Region 42
 Paleoamur 24
 Pangaea 23
 Pannonian Lowland 41
 Pannonian Sea 13
 Partizánska Lupča 87
 Pashnyak r. 53
 Pechora r. 5, 16, 24, 25, 41, 42, 52, 53, 89, 113, 148
 Pechora Sea 53
 Perm 5, 52
 Pesnica s. 48
 Peter the Great Gulf *see* Gulf
 Piatra Neamț 50
 Pielach r. 36, 45, 72, 94, 145, 169
 Piešťany 47
 Piva r. 49
 Plitvica s. 48
 Podbiel 72, 134
 Podbrezová 145
 Podhradský potok s. 47
 Podkamennaya Tunguska *see* Tunguska
 Podsuchá 90, 92, 102, 130, 171, 180
 Poiana Stampei 50
 Poienile-de-sub-Munte 48
 Poland, People's Republic of 72, 148–150, 152, 154, 155, 162, 163
 Polar Circle 128
 Polhoranka s. 47, 72
 Pontic-Caspian-Aralian Province 17
 Ponto-Caspian District 42
 Ponto-Caspian Province 42
 Poprad r. 51, 94, 99, 104, 124, 130, 145, 150, 151, 154, 162
 Považská Bystrica 171, 196
 Prača r. 49
 Prague 157, 158, 170
 Prahova s. 50
 Příbovce 71, 145
 Prievidza 156
 Probina s. 76
 Prut r. 18, 19, 24, 29, 50, 51, 136
 Puchheim 169
 Púchov 72
 Putila s. 51
 Pyasina r. 42, 54

 Quebec 52, 165

 Raab r. 46
 Rába *see* Raab
 Rabski potok s. 51, 162
 Rădăuți 50
 Radel s. 48
 Radvaň nad Dunajom 5, 43
 Rajčianka s. 47, 120, 155, 166
 Ranšpurk 46

- Rapides de Lachine 165
 Redl-Zipf 169
 Regen r. 44
 Schwarzer Regen 44
 Weisser Regen 44
 Reiznerovac s. 48
 Revúca r. 47
 Rexforsån r. 52, 164
 Rhein *see* Rhine
 Rheinfelden 160
 Rhine r. 52, 159, 160
 Rhône r. 52, 119, 163
 Rika r. 49
 Rosenheim 86
 Rožňovská Bečva *see* Bečva
 Rudno reservoir *see*
 Nitrianske Rudno res.
 Rumania, Rumanian Socialist
 Republic 43, 48, 136, 137, 148–150, 172
 Rumia 162
 Ruscova r. 15, 48
 Russian Lowland 24, 27
 Ruthenia 170
 Ružín res. 49, 154, 155
 Ružomberok 47, 85, 87, 123, 124, 130, 134, 139,
 145, 171, 180
 Ryburg-Schworstadt 160

 Saane r. *see* Sarine
 Sakhalin 7, 8, 13, 24–26, 121
 Salamanca 164
 Salda r. 53
 Salzach r. 45
 Salzburg 45, 150
 San r. 51, 162
 Sana s. 49
 Sanica s. 49
 Saône r. 52
 Sarajevo 169
 Sarapul' 52
 Sarine r. 52, 159–161
 Sava r. 26, 49, 62, 88, 90, 94, 99, 122, 123, 125,
 126, 136, 145, 151
 Savinja s. 49, 151
 Sayan Mts. 41
 Sázava r. 51
 Schongau 85
 Sea of Japan 6, 7, 25
 Sea of Okhotsk 7, 42
 Selendzha r. 55
 Selenga r. 54
 Semois r. 52, 162
 Senkyu r. 55
 Severnaya r. 54, 116
 Severnaya Dvina r. *see* Northern Dvina
 Severnye Uvaly Hills 41
 Shan-si r. 55
 Sharin r. 54
 Shchugor r. 53
 Shibeny s. 51
 Shilka r. 55
 Shishkhid r. 10, 16, 54, 56, 95, 99, 100
 Shopurka r. 48
 Siberia 10, 13, 15, 17, 19, 25, 27, 41, 55, 62, 75,
 88, 101, 102, 114, 140, 148
 Sichuan 6
 Sielnička 71
 Sigmaringen 19
 Sikhote-Alin' Mts. 7, 41
 Silesia 169, 171
 Siligir r. 55
 Sino-Indian Region 42
 Siretul r. 50, 136
 Sisim r. 54
 Sistyg-Khem r. 54
 Skalka 86, 87
 Skawica r. 51, 162
 Slaná r. 49
 Slatina r. 48
 Slobodskoe 53
 Slovakia 9, 40, 59, 75, 87, 93, 103, 106–108,
 113–115, 123, 129, 135, 139, 145–149, 152,
 158, 162, 168, 170
 Slovenia 48, 87, 146, 150
 Slovenská Lupča 171
 Slovenský Raj Mts. 154
 Smižany 154
 Snezhnaya r. 54, 71
 Socovce 87
 Sola r. 51, 162
 Someşul Cald r. 49
 Sora s. 49
 Sos'va r. 53
 South America 23
 Soviet Union *see* Union of Soviet Socialist Repub-
 lics
 Soz Yuzhnyi r. 53
 Spain 64, 99, 110, 120, 122, 142, 158, 164
 Spišská Belá 124
 Spišská Nová Ves 49, 120, 145, 154
 Spišská Stará Ves 145
 Spittal 86
 Spreča s. 49
 Stanovoi Khrebet Mts. 41
 Stará Lubovňa 145
 Steyr 45

- Stěňava s. 51, 158
 St. Lawrence R. 165
 Strečno 71
 Streia s. 49
 Strug s. 49
 Studený potok s. 47, 72, 77, 78, 127
 Stupančica s. 49
 Stupava 46
 Styria 150
 Suceava 50
 Sučany 134
 Sukhanovka 145
 Sungari r. 25, 55, 103
 Sutar region 120
 Sušice 157
 Sutjeska r. 49
 Svarín 47
 Svatka r. 156
 Swabia 43
 Sweden 142, 164
 Switzerland 150, 152, 159, 160, 164
 Syhleč s. 47
 Syl'va r. 52

 Štiavnica lake system 48
 Štúrovo 43
 Šumava (Bohemian Forest) Mts. 41

 Tagil' r. 53
 Ťahanovce 154
 Taimyr Peninsula 41
 Tajovský potok s. 171
 Tamiš *see* Timiș
 Taplow 159
 Tara s. 49
 Tarnov 155
 Tatar Strait 7
 Teddington 159
 Teisnach r. 44
 Tempa r. 54
 Teplá s. 71
 Tereblya r. 49
 Teresva r. 49, 127, 170
 Tetyushi 52
 Teufenbach s. 85
 Thames r. 52, 159
 Thonon-les-Bains 161
 Timiș r. 50, 136
 Tirekh-Yurakh r. 55
 Tîrgului r. 50
 Tirol 110, 150
 Tisa r. *see* Tisza
 Biela Tisa 48
 Čierna Tisa 48
 Tisza r. 9, 15, 48, 49, 85, 90, 94, 100, 104, 127, 130, 136, 139
 Tit-Ary 89
 Tobol r. 53
 Tokko r. 55
 Tom' r. 53
 Topľa r. 155
 Tormes r. 52, 64, 99, 110, 120, 164, 165
 Traisen r. 46, 94, 136, 169
 Traismauer 169
 Transbaikalia 75
 Transcarpathian region of the Ukraine *see* Ukraine, Transcarpathian region of the
 Transylvania 50
 Traun r. 45, 94, 136
 Trbovlje 49
 Trebež s. 49
 Trenčín 46, 134
 Trepča s. 49
 Tresna res. 162
 Trstená 145
 Tuba r. 54
 Tugur r. 5, 42, 55
 Tulln 86, 87
 Tunguska r.
 Nizhnaya Tunguska 54
 Podkamennaya Tunguska 54
 Tura r. 53
 Turiec r. 9, 14, 26, 36, 47, 53, 62, 71–73, 85–87, 90, 94, 97, 99, 100, 104, 105, 107, 116, 119, 120, 124, 135, 138, 145, 151, 152, 155
 Turkä r. 54
 Tuul r. 54
 Tvrdošín 74, 145
 Tým r. 25
 Tynepe r. 54
 Tyung r. 55

 Uba r. 53
 Uchur r. 55
 Uda r., Enisei river system 54, 86
 Uda r., Sea of Okhotsk drainage area 5, 13, 18, 42, 55
 Ufa r. 52
 Ukraine
 Transcarpathian region of the Ukraine 64, 67, 68, 70, 72, 74, 75, 114, 130, 138, 147, 148, 151, 170
 Ukukit r. 55
 Ulakhan-Dyarkalaakh r. 55
 Ulm 19, 43
 Uls r. 52

- Ulz r. 55
 Umm-ar-Rbia r. 52, 161
 Una s. 49, 94
 Ungar s. 49
 Union of Soviet Socialist Republics (USSR) 24, 87, 137, 144
 United States of America (USA) 165
 Unterfähring 44
 Upper Savoy 119, 163
 Ural Mts. 12, 27, 36, 41, 75
 Ural r. 27
 Urshun r. 55
 Us r. 54
 Usa r. 53, 166
 USA *see* United States of America
 Usora s. 49
 Usses r. 52, 119, 163, 164
 USSR *see* Union of Soviet Socialist Republics
 Ussuri r. 55, 127
 Ust'chorna 127
 Ust'-Ilinsk res. 54, 59, 106, 123
 Uvac r. 49, 124
 Uzhgorod 171

 Váh r. 9, 11, 14, 36, 37, 46–48, 71, 74, 85, 87–90, 94, 97, 99, 100, 102, 104, 105, 107, 115, 123, 124, 130, 134, 136, 138, 139, 145, 152, 169, 170
 Čierny Váh 46, 47
 Valašské Meziříčí 156
 Valdai Hills 27
 Valentová 87
 Vardar r. 18
 Vaser r. 48
 Vatra Dornei 50
 Vážna *see* Hradeľský potok
 Véd Gígú r. 52, 161
 Velika Morava r. 50, 136
 Vefký Ag *see* Rika
 Vellach s. 48
 Veltsa r. 52
 Verkhoyanskii Khrebet Mts. 41
 Vertach r. 94
 Veslyana r. 52
 Vidraru res. 50, 59, 99
 Vienna 43, 88, 150
 Villach 147
 Vils r. 44, 45
 Vilyui r. 12, 55, 62, 68, 74, 95, 99–101, 115, 120, 128, 132
 Vilyuisk res. 55
 Vir s. 48
 Vişeu r. 15, 48
 Vişeu-de-Sus 48

 Vishera r. 10, 15, 52, 95
 Vistula r. 51, 169
 Vitim r. 12, 18, 55, 62, 91, 95, 104, 106, 123, 148, 149
 Vladimir Bay *see* Bay
 Vladivostok 7
 Vlašky 123, 124
 Vltava r. 51, 94, 100, 157, 158
 Vöckla r. 45
 Vodňany 170
 Voevorlikhan r. 54, 128
 Vogošće s. 49
 Volga r. 5, 24, 25, 41, 42, 52
 Vorokhta 50
 Vrané 158
 Vrané res. 157, 158
 Vranov 46
 Vranov res. 46, 157
 Vrbanja s. 49
 Vrbas r. 49
 Vríca s. 71
 Vrútky 47
 Vsetín 171
 Vsetínská Bečva *see* Bečva
 Vyatka r. 53
 Vychegda r. 52
 Vysoký Potok 171

 Walachian Lowland 41
 Waltenhofen 86
 Wasserburg 85
 Weinsberger Wald Hills 41
 Weitenegg 85
 Wertach r. 43
 Western Siberian Lowland 41, 53
 Wisła *see* Vistula
 Würm r. 45

 Xingan r. 41

 Yablonovoi Khrebet Mts. 41
 Yaiva r. 52
 Yakutia 62, 86, 88, 89, 113, 140, 147
 Yalpukh r. 51
 Yalu r. 5, 8, 25
 Yamal Peninsula 41
 Yana r. 5, 13, 42, 52, 55, 57, 95
 Yangtze *see* Chang-jiang
 Yaz'va r. 52
 Yazyasha r. 52
 Ybbs r. 45, 169
 Yugorskii Shar strait 53
 Yugoslavia 26, 40, 48, 56, 74, 97, 122, 124, 137,

-
- 142, 145, 146, 148–152, 158, 161, 163, 164, 169, 172, 190
Yuzhnomuiskii Khrebet Mts. 148
Zagreb 49
Záhorská Ves 46
Zamlaka 86, 87
Zázrivka s. 47, 72
Zborovský potok s. 155
Zeya r. 55
Zhigansk 89
Zlatarsk res. 124
Znojmo 46, 157
Znojmo res. 46
Zubrzyca s. 47
Zujevina s. 49
Zvolen 48
Žarnovica 155
Željeznica s. 49
Žiar nad Hronom 145
Žichovice 157
Žilina 71, 87