

Pakomárcovití (Diptera: Ceratopogonidae) Jizerských hor a Frýdlantska

**Ceratopogonidae (Diptera) of the Jizerské hory Mts and Frýdlant region
(northern Bohemia, Czech Republic)**

Lcp⁰KNOZ³⁺ ("Cpftgc⁰V ~ V J QX f⁴⁺

³⁺Ct o²pum^a35. "E \ ó847"22Dtpq/Dqj wpkeg="g/ o ckn<Impq | B ug | pc o 0e |
⁴⁺—uvcx⁰dqvcpkm{ "c" | qqnqikg. R fqtqf qx fgem^a"hcmwnc⁰Ocuct{max{ "wpkxgt | kv{."Mqvn^a um^a4."
E \ ó833"59Dtpq="g/ o ckn<vqv j qxc B uek0 o wpk0e |

Abstract. Cnvi g v j g t⁹: "urgekqu⁰qh⁰Egtcvqrqi qpkfcg⁺ ygtg⁰hqwpf⁰kp^vj g⁰Lk | g t u m² j q t { "Ovu⁰cpf⁰Ht fncpv⁰tgi k q p⁰
Pkp g⁰urgek u⁰ y g t g⁰t g e q t f g f⁰kp^vj g⁰E | g e j⁰T g r w d n k e⁰h q t^vj g⁰L t u v⁰vk o g⁰V j g⁰p w o d g t⁰q h⁰urgek u⁰h q w p f⁰kp^vj g⁰u w f { "c t g c⁰
o c m g u⁰w r⁰62 " q h^vj g⁰E | g e j⁰d k v p i⁰ o k f i g⁰h c w p c l⁰O q u v⁰q h^vj g⁰urgek u⁰c t g⁰R e n c g t e v k e^{*3}: "ur r0t. h q m n y g f⁰d { " J n q t e v k e⁰
^{*3}: "ur r0t+⁰cp⁰P g q v t q r k e c n⁰4⁰ur r0t0

Key words: Fkrvgtc. Egtcvqrqi qpkfcg. Lk | g t u m² j q t { "Ovu. Ht fncpv⁰tgi k q p. p g y⁰t g e q t f u. f k u w t k d w p k p. h c w p k u v k e u. " d k q n q i { 0

—XQF

Rcmq o^ateqxkv⁰*Egtcvqrqi qpkfcg+⁰luqw⁰ftqdp² o w-m { "q⁰xgnkmqukv⁰ n c⁰2.9/33" o o⁰*qdx { mng⁰
3/5" o o +0⁰Luqw⁰r f⁰dw | p⁰r c m q o^a t o⁰*E j k t q p q o k f c g +. u g⁰m v g t o k⁰d { n k⁰f f⁰x g⁰ c | g p k⁰f q⁰u r q n g p²
g n g f k 0⁰P c⁰t q | f⁰n⁰q f⁰r c m q o^a t " o c l⁰r q o t p " u v^an " r q g v⁰{ m c f n q x e j⁰ n^ap m⁰ * | r t c x k f n c⁰37."
x l k o g p⁰35⁰p g d q⁰36+0⁰J w u v " r q t q u v⁰{ m c f n q x e j⁰ n^ap m⁰ " w⁰u c o e " f^ax^al g l k e j⁰v { m c f n o⁰v { r k e m⁰
-v v g m q x k v " x | j n g f⁰F q u r n e g⁰q d q w⁰r q j n c x⁰q f n k -⁰o g⁰q f⁰r c m q o^a t " r q f n g⁰r q o t p⁰ f n q w j² j q⁰
u q u^am w. " q d n g⁰x { m n g p w v² j t w f k. " | c x c n k v l -⁰f j q⁰ | c f g m w⁰c⁰m t e v -⁰f e j⁰ r g f p⁰e j⁰m q p g v k p 0

X⁰u q w c u p² f q d " l g⁰ e g n a q u x v q x " g x k f q x^a p q⁰ q m q n q⁰ 7⁰ 722⁰ r n c v p e j⁰ f t w j q x e j⁰ r q r k u⁰
r c m q o^a t e " * D q t m g p v⁰4228+. " | G x t q r { " l g⁰ j n^a-g p q⁰ 7: : " f t w j " * U | c f | k g y u m k⁰ (" D q t m g p v⁰4226+0⁰
P c⁰À | g o⁰ T⁰u g⁰ | c d x c n k⁰ p c⁰ r q⁰ a v m w⁰ o k p w n² j q⁰ u v q n g v⁰ q m t c l q x " u w v f k o⁰ r c m q o^a t e " f k r v g t q /
n q i q x². " x p w l⁰e⁰u g⁰v c z q p q o k k⁰c⁰h c w p k u v k e g⁰ r c m q o^a t " * M q y c t | . " X k o o g t. " c x g n⁰c⁰N c p f t q e m +0⁰
R t x p⁰l⁰q d u^a j n g l -⁰f e j g e m n k u v⁰* Q t u |^a i j⁰ (" E j c n w r u m⁰ 3; ; 9+⁰g x k f w l g⁰ r t q⁰À | g o⁰d x c n² j q⁰ g u m q /
u n q x g p u m c⁰368⁰ f t w j " * 87⁰ | " À | g o⁰ T +0⁰M⁰ p c x -g p⁰ r q v w⁰ | p^a o e j⁰ f t w j " | " g u m e j⁰ | g o⁰
c⁰ | g⁰ U n q x g p u m c⁰ q f⁰ f q d⁰ Y k o o g t q x e j⁰ r q⁰ | o⁰ p p⁰ e j g e m n k u v⁰ x | p c o p⁰ r k u r n { " r t^a e g⁰ M p q | g⁰
^{*3}; 9: +⁰c⁰ Q t u |^a i j c⁰*3; : 2+0

X⁰u q w c u p² f q d " l g⁰ | " À | g o⁰ T⁰ | p^a o q⁰ 3; 7⁰ f t w j " * V > v j q x^a (" M p q | " 4228+. " | " v q j q⁰ d { n q⁰
55⁰ f t w j " | l k -v p q⁰ v g r t x g⁰ x p g f^a x p² f q d 0⁰X -g e j p { " t g e g p v p⁰ |^a | p c o { " l g f p q v k x e j⁰ f t w j " | " r g /
f g -n e j⁰ x | m w o⁰ x⁰ g u m² c⁰ U n q x g p u m² t g r w d n k e g⁰ n | g⁰ p c l⁰ v⁰ x⁰ r w d n k m c e⁰ e j⁰ M p q |⁰*3; ; 9+. M p q |
g v⁰ c n 0⁰*4226+. " V > v j q x^a*422: +. " V > v j q x^a g v⁰ c n 0⁰*4226c. d. 4227+⁰c⁰V > v j q x^a (" M p q |⁰*4228+0

X⁰q d n c u k⁰ L k | g t u m e j⁰ j q t⁰c⁰ H t f n c p v u m c⁰ p g d { n c⁰ v c v q⁰ g n g " f q u w f⁰ | m q w o^a p c⁰c⁰x -g e j p { " f t w j { "
w x g f p² p⁰ f l g⁰* x⁰ r g j n g f w⁰ p^a n g | +⁰ l u q w⁰ r t q⁰ | m q w o c p² À | g o⁰ p q x² 0⁰X l k o m q w⁰x⁰ v q o v q⁰ u o t w⁰
l g⁰ l g p⁰ | r t^a x c⁰ q⁰ p^a n g | w⁰ x⁰ | a p² j q c⁰ o^a n q⁰ | p^a o² j q⁰ t q f w⁰ c⁰ f t w j w⁰ *Neurohelea luteitarsis* Y c n v n. "
3: 59⁰* V > v j q x^a (" M p q |⁰ 422: +⁰c⁰ f t w j w⁰ *Atrichopogon* * *Lophomyidium*+⁰ *fusculus* *⁰ E q s w k n g v v. "
3; 23+⁰* V > v j q x^a (" M p q |⁰ 4228+0⁰

X xqlqx^auv^afkc^arcmqo^ate flkl^ax^artquv^agf^acmxcvkem²o^ac^aug^aokcmxcvkem²o^ak^ax^avtxcnglk^axnjm²o^ar^atquv^agf^apc^auqw-k0^acuvq^alg^apcn²|^aog^avcm²x^atquvknpp^aej^auvqpe^aej^a.rqf^am^atqw^auvtqo^a.xg^ax^a{v²mc^al^ae^ao^al^ag^a|^arqtcp^ap^aej^auvtqo^ak^ax^ad^a{fnk-v^aej^alkp^aej^aflkxq^akej^a*x^apqt^aej^auxce^a.rvc^aej^aj^ap^a|^afgej^a.o^atcxgpk-v^aej^acrqf0+0^aLglkej^agmqni^akg^alg^axgn^aok^at^a|^apqtqf^ac^aw^ao^apqj^ac^aftwj^apgp^af^aquw^a|^ap^ao^a0^aFqur^anek^aug^ax^av-kpqw^a|^aftflw^ax^adn^a|^amqvkh^al^aj^apk-0^aXgmm²tq^a|^af^al^a{^aluqw^ar^acvtp²x^aej^actcmvgtw^alglkej^ar^aqvtx^a{0^aUc^aok^aluqw^aj^agtdkxqtp^apgdq^ar^aqvtxw^ax^adge^apgr^akl^ao^acl^a0^aRqvtcx^auc^aok^alg^apc^artqwk^avq^ao^aw^axgn^aok^at^a|^apqtqf^a.^aej^actcmvgtkuvkem^ar^atq^alg^afpqvnkx²tqf^a{^apgdq^ar^aqf^atqf^a{0^aUc^aok^aeg^ap^amvgt^aej^aumwrk^a**Culicoides*ur^a0.*Forcipomyia***Lasiohelea*+ur^a0.*Ngrvqeqppr^akpcg^a+luqw^aj^ag^aocvqh^ai^ap^a*.ucl^ae^al^amtgx^apc^at^a|^ap^aej^aqdtcvmqx^ae^aej^a*x^ag^av^aq^adq^aflkxg^anp^al^am^a+0^aUc^aok^aeg^alk^ap^aej^aumwrk^a**Forcipomyia***Euprojoannisia*+ur^a0.*Dasyhelea*ur^a0^acl0^a+ug^aflkx^al^apg^amvctg^ao^ac^ar^a{ng^ao^atquvkn^ac^ac^afc^aumwrk^al^ag^akpugm^axqtp^aej^a.flkx^ae^aej^aug^aj^ag^aoqn^a{o^ahqw^ac^avm^ap^aok^alkp²j^aj^ao^a{|w^a**Atrichopogon***Melohelea*+ur^a0.*Rcnrqo*{kpcg^a.p^amvgt²r^aqf^atqf^a{^atqfw^a*Forcipomyia*+0^aQf^avtq^al^aem^aej^ax^a|vc^aj^aug^aqf^ax^al^al^avcm²gmqni^akem^ac^aurqng^agpum^ax^a|pc^ao^arcmqo^ate^a0^aJg^aocvqh^ai^ap^al^aftwj^a{|pgr^al^ag^ao^awl^ank^af^ag^ao^arqd^a{v^axg^axqp²r^al^atqf^a"c^a|^apgm^akl^awl^af^aq^ao^ae^al^ak^afxqdeg^aflk^ae^a|^ax^al^acvc^ac^ao^aqj^aqw^aunqwf^al^acmq^ar^agpc^a-g^ak^at^a|^ap^aej^ap^amc^a|0^aJgtdkxqtp^aftwj^a{^aug^ax^ar^al^atqf^a"wrncv^awl^al^acmq^aqr^a{nqxc^ak^ap^amvgt^aej^atquvkn^a*pc^ar^a0^amcmcxp^al^am^ao^aflg^ad^av^aqr^a{ngp^al^agp^ap^amvgt^aok^aftwj^a{^arcmqo^ate^ar^aqf^atqfw^a*Forcipomyia***Euprojoannisia*+c^ax^apc^a-l^ar^al^atqf^a"ug^a|^aglo^a"vgpv^aq^aj^ao^a{|^ax^a|pc^ao^awrncv^awl^al^acmq^aqr^a{nqxc^aw^aftqdpqmx^av^aej^atquvkn^agng^af^al^aFwec^aegcg^a.Cuvgtcegcg^acl0^ac^al^ag^ao^aqflp².flg^ap^amvgt².|^agl^ao^apc^ax^a|^aep²gp^afg^aokem²ftwj^a{^atquvkn^a.d^a{^adg^a|^avq^aj^aqv^aj^ao^a{|^aw^ao^aqjn^a{^ax^a{^apqmw^a0

OGVQFKMC^aC^aO^aCVGTk^af^aN

Ocvgtk^an^ad^a{^al^aum^ap^ax^ahgej^a422564229p^aung^afw^al^ae^ao^ak^aogvqfc^aok^aud^atw^awx^ag^afp²|^amtcv^a{^aluqw^ar^aqfw^al^a{^ax^ar^ag^ang^aw^aftwj^a+<GV^ao^ag^aog^ati^agpeg^av^ateru^a*og^agt^agpvp^ar^acvuk^a.OV^ao^aO^aciackug^av^ateru^a*O^aciackug^aj^aq^ar^acvuk^a.RV^ao^ar^atqvgk^av^ateru^ao^agcv^av^ateru^a*r^atqvgk^apx².o^acuqx²r^acvuk^a.[RV^ao^a{^agmqy^ar^acp^av^ateru^a*flmw²o^akum^a{+.x-g^aL0^aRt^agkngt^a("R0^aXqpk^amc^ani^av0^aN^ao^ank^ai^aj^a*ud^at^apc^aux^awq+=UY^ao^auy^agg^ar^akp^ai^au^ao^am^ap^al^ax^ag^aiv^agceg^agp^av^ao^aq^aq^ai^akemq^aw^au^al^al^a.x-g^aL0^aRt^agkngt^ani^av0^aRq^af^atqdp^av^a{vq^ao^agvqf^a{^ar^aqr^akw^al^ag^aXqpk^amc^a*422:+0^aXg^a-mgt^ao^acvgtk^an^af^agvt^ao^akpqxcnk^aqdc^ac^awv^aq^ak^ac^al^ag^awnqflgp^ax^ag^aud^af^ateg^aftwj^a2^aj^aq^ac^awvq^acl^a0^aRq^af^atqdp^al^a-f^ax^a{o^ag^al^agp^ac^aej^actcmvgtkuvkmc^aung^af^aqpc²j^aq^al^ag^ao^af^ax^a|^aXqpk^amc^a("Xl-^am^a*422:+0

R g^aj^ang^al^ahqmcnk^a

-fclg^am^anqmcnk^ao^aluqw^awx^ag^afp^a{^ax^ap^aung^afw^al^ae^ao^ar^aq^acf^al^al^al^aum^ac^ap^a|^agx^ahqmcnk^a{^a*qdge^a.^auv^aqdeg^a.ej^at^ap^ap^a2^al^ag^a/o^a.xtej^aqn^a.crqf0+.hcvp^akvkem^ao^aocrqx^a^av^axgtge^a*Rtwpgt^a("O^amc^a3;+8+.pcf^ao^aq^aum^ax^a-mc^a.dkvqqr0^aP^amvgt²nqmcnk^a{^aluqw^atq^a|^angp^a{^apc^ax^af^aeg^adkvqqr^a.mvgt²luqw^a|^apc^agp^a{^ar^afu^aogp^a{0^aRqfw^al^av^a|^amtcv^a{<PR^aT^ao^ap^aq^atf^ap^ar^al^atq^af^al^ag^al^ag^atxc^aeg^a.RT^ao^ar^al^atq^af^al^ag^al^ag^atxc^aeg^a0

[1] **Bílý Potok**.7379:<[1a]^at^adp^al^am^a{^aux0^aq^af^aflgn0^auvcpkeg^a.672^ao^a*r^atc^ao^agpk^a-v^a.o^aqm^acf^a=[1b]^ao^aqm^acf^ac^axnjm²nqwm^a{^apcf^am^aqwrnk^a-v^ao^alkflp^aq^af^aqdeg^a.632^ao^a=[1c]^al^al^aq^al^ag^ag^atp²j^aq^ar^aqvcm^a.642^ao^a*ng^au^a+0^a[2] **Bukovec PR**.737:<[2a]^angup^ar^atc^ao^agpk^a-v^apc^al^aux^aecj^aw^a.;42^ao^a=[2b]^aR^atcnqwm^a.;22^ao^a*j^aqtum^anqwm^a.r^atc^ao^agpk^a-v^a+=[2c]^aW^arq^anp^aqx^anqwm^a.:2^ao^a*j^aqtum^anqwm^a.o^aqm^acf^a=[2d]^au^ao^at^akpc^au^al^ag^ad^ag^ao^apc^au^a|0^auxc^aj^aw^a.;52^ao^a0^a[3] **Frýdlant**.7278.542^ao^a.d^ag^aj^a{^agm^a{^aU^ao^af^a2^a[4] **Jqtp^al^ag^atp^aU^aw^afp^aleg^a*q^adge^aP^aqx^aX^ag^au^apc^aF^al^aquw^a.7479.972^ao^a*x^anj^am²nqwm^a{^ao^aqm^acf^a.q^ank^a-kpc^a+0^a[5] **Jqtp^aNw^acp^a**{^a*q^adge^aNw^acp^a{^apc^aF^al^aquw^a.7479.892^ao^a.t^a{^adp^am^aM^afu^am0^a[6] **Horní Polubný***q^adge^aM^ag^agpqx^a.747:.922^ao^a.o^aqm^acf^a{^ac^ahqw^a{^al^aq^af^aq^auc^af^a{0^a[7] **Lg^af^aq^ax^af^an^aRT**.7479.892^ao^a.d^ag^aj^ar^aqvcm^aLg^af^aq^ax^a*ng^au^a+0^a[8] **Jizerka***q^adge^aM^ag^agpqx^a.737:.:72/:32^ao^a.d^ag^aj^a{^af^am^a{^aLk^al^agtm^a{^anqwm^a{^ac^aqmtcl^anguc0^a[9] **Mq^agpqx**.747:.:8:2^ao^a.r^aqvcm^ao^aqm^akp^a{^arq^af^aflgn0^auvcpke0^a[10] **Ocn^aU^avt^apc^aRT**.7479.922/942^ao^a*nqwm^a{^ao^aqm^acf^a.t^a{^adp^al^ag^am^a.r^aqvcm^a+0^a[11] **Mariánská Hora***q^adge^aC^andt^ag^aj^aw^aeg^ax^al^al^agtum^aej^aj^aq^at^aej^a.7479.972^ao^a*ng^au^a+0^a[12] **Ogep^aft^aU^ao^af^a2^aRT**.7278.442^ao^a.t^a{^adp^al^ag^am^aux0^aq^af^at^a{^adp^al^ag^am^aF^aw^ad^am^a*o^aqm^acf^a.r^aqf^ao^agp^a*qn^a-kpc^a+0^a[13] **Minkovice***q^adge^aXk^a-qx^a.7278.472^ao^a*r^aqvcm^a.o^aqm^acf^a+0^a[14] **Mníšek**.7378.5:2^ao^a.x^anj^am²nqwm^a{^aw^aflgn0^auvcpke0^a[15] **Qnf^akej^aqx^ax^aJ^al^al^ag^a**.7378.622^ao^a.^auv^aP^ac^aR^akn^aej^a*nqwm^a{^ax^apl^ax^ar^aqvcm^aLg^akeg^a+0^a[16] **Qnf^akej^aqxum²ug^afiq^a*PRT**Lk^al^agtum^aj^aqtum²dw^akp^a{+.7378.722^ao^a.X^akp^ap^a*eguc^a*dw^akpc^a+0^a[17] **Paseky nad Jizerou**.747:.:792^ao^a.O^acm^aqxum^ar^aqvcm0^a[18] **Plavy**.7479.622^ao^a.l^aq^al^ag^am^aR^aq^atdum²j^aq^ar^aqvcm^a*t^a{^adp^al^ag^am^angup^a**

rqvqm+0[19] Poustecká obora *x ejqfp "qf"quef{"Rqvwmc."qdge"Xk- qx"+.7278."4:2"o."Dwmqum "rqvqm."ngupf"
t{dp}m{0[20] Raspenava. 7378."542"o."J qnwdf"rqvqm"rqf"flgn0"vtc"q"o qm cf."qn-kpc+0[21] Tc-gnkp-k-v "Lk|gtm{"PRT."
7379/737:."82/:.2"o."Mnwigj"qvwmc*tc-gnkp-k-v +."d gj {"Uchftqx²jq"rqvqmc"R ¶ p²"xqf{0[22] Tc-gnkp-k-v "Lk|gt{"
PRT. 737:."52"o*tc-gnkp-k-v ."tc-gnkp²"uot kp{"d gj" gm{"Lk|gt{+0[23] Tglfleg"qdge"m q gpqx+."737:."872"o."
rqvqm"lg-mtcdge*rtc ogpk-v ."o qm cf+0[24] U o tm"o cukx"jqt{+."7379<[24a]"u o t kpc"pc¹|0"uxejw."3"322"o="[24b]
Nkdxgtfum "o qm."922"o."d gj"\vtcegp²jq"rqvqmc"ngupf"rtc ogpk-v +0[25] "rk *m"xtejqm. PRT"Lk|gtumqjqtum²"dw kp{+.
7378."822"o*dw kpc."rqvqm+0[26] U Kyselky *lkfp "qf"pqx²jq"O uvc"rqf"U o tmg o+."7479."822"o."Áfqm"vtcegp²jq"
rqvqmc*o qm cf."ngu."d gj"rqvqmc+0[27] Xªenx{mqxc"Uwvfªpmc"qdge"m q gpqx+."747:."72"o*xnjmªnqvwmc+0

X UNGFM ["C"FKUMWUG

R gjngf|lk-v p ejftwj

Rqwfllv²|mtcv{<"B!"ó"pqx "ftwj"rtq" gej{"CZ!"ó"pqx "ftwj"rtq" gumqw"tgrwdnkmw*pgrrwd/
nmqxp²"rtxpªng|{+=" U"ó"mcvgiqtgk|" " gtxgp²jq"ug|pc o w"qj tqflgp ejftwj "dg|qdtcvn ej"
T"ªQtu|ªij" ("Mpq|4227+<"VU"ó"|tcpkgnp "ftwj0

Alluauodymya ur0

X xqlqxª"uvª fkc"vqjqvq"tqfw"flkl"ªx"nkvtªnp"o"rª u o w"uvqlcv ej"xqf0"X" T"d{n{"fquwf"|lk-v p{"
v k"ftwj{"ªMpq|" ("Tcvclum "3;:9+0"Uc o keg|"fumpªªx"tª o ek"x |mw o w"pc"Ht fncpvmw"m"flª f/
p² o w"|"v ejvq"ftwj "pgpªngfl"Rqfng"mtgud{"pc"m ¶fngej"ug" o flg"lgfpcv"q"lgfgp"|"fcª-¶ej"
v ¶gxtqrum ejftwj "tqfw"Alluauodymya."|"pkejfl"pc"ª|g o ¶" T"pgd{n"fqwf"flª fp " |lk-v p0"
\fc"ug"q"p mvgt " |v ejvq"ftwj "umwvg p "lgfªªx-cm"pgp"o qflpq"dg|"uvwfk"i gpkvªnk"uc o eg"
u"wt kvquv"tq|jqfppw0"

Ogcpft{"U o fªRT"J34<440XK0/70XKK04227."3" *OV+0

Atrichopogon*ªu0"uvt0+ªalveolatus"Pkgngp."3;73

Rcngctmvkem "ftwj"tq|¶gp "x"Gxtqr ."|pª o "k"|"lkp ej"nqmcnk"v" gejªej."cng"rq o tp "x|ªep 0"
Vgpvq"ftwj"lu o g"wt knk"pc"|"ªmncf "tgfgumtkreg*U|cf|kgyumk"gv"cn0"3;:8+0" gl o "ug"x-cm"lgfªª"
q"u{pqp{ o w o "ftwjw"Kempia singularis"ªMkghgt."3;43+0"Ux f ¶q"vq o qdtª |gm"g o rqfkc."mvgt "
wxª f"ªMkghgt"ª3;47<r0"38."qdt0"87+0" FgŁpkvxp "qx-g o "dwf g" o qflpq"vwvq"u{pqp{ o k|cek" g-kv"
cfl"rq"utqxpªp"v{rxq ej"o cvgtkªn "qdqw"fqwf"rncvp ej"vczq p 0"

Bílý Potok [1a] < 4; 0XKK0/3; 0XKK04227."3" *OV+ª3; 0XKK0/60KZ04227."3" *OV+0" Lgfªqx "f nRT"J9< 80/4; 0XKK04227."
3" *OV+0" Ogcpft{"U o fªRT"J34< 3; 0/530X04227."5" .530X0/440XK04227."5" .440XK0/70XKK04227."3" .70/4; 0
XKK04227."8" .4; 0XKK0/3; 0XKK04227."6" .60/450KZ04227."3" *x-g"OV+0" Tglfleg"J45< 4; 0XKK0/380XKK04227."
3" .380XKK0/30KZ04227."3" .90/440KZ04227."3" *x-g"GV+0

Atrichopogon*ªu0"uvt0+ªbrunnipes"ªOgkigp."3;26+

Rcngctmvkem "ftwj"tq|¶gp "x"ngup"¶ej"qdcvgej"x"Gxtqr ."Lcrqumw"ªpc"ªMcpªtum ej"qvvtq/
xgej0"

Bílý Potok [1a] < 3; 0XKK0/60KZ04228."3" *OV+0

Atrichopogon*ªu0"uvt0+ªfuscus"ªOgkigp."3;26+

Rcngctmvkem "ftwj"|"pª o "|"Gxtqr{"ugxgp"¶Chtk{"c"ªMcpªtum ej"qvvtqx ."x" T"xegnmw"d flp 0"

Bílý Potok [1b] < 530X04226."3" *U Y+ª3; 0XKK0/60KZ04227."5" *OV+0" Bukovec PR [2a] < 430XK04228."3" ."
4; 0XKK04227."4" *x-g"U Y+0" Plavy [18] < 450XK04228."4" *U Y+0" Tc-gnkp-k-v "Lk|gt{"PRT"J44< 320/440XK04225."
3" *OV+0

*Atrichopogon**u0|vvt0+|"griseolus"*\gvgvtuvgvf.v."3:77+

Rcngctmvkem "ftwj|p^a o " |g'ugxgtpf|c"uv gfp|Gxtqr{"x gvp " T0

Bukovec PR [2a]<4:0XKKK04227."5" *U Y +0^a**Frýdlant [3]**<340X04228."3" *U Y +0^a**Jqtpf|Nw cp**{"77.<40XKKK04227."3" *U Y +0^a**Oci**"|Uvtpc|RT"|32.<40XKKK04227."3" *U Y +0^a**Ogcpft**{U o f²RT"|34.<440X0/70XKK04227."3" *OV+0

*Atrichopogon**u0|vvt0+|"minutus"*Ogki gp."3:52+

Jqncctmvkem "ftwj|u'x um{vg o x'ugxgtpf|c"uv gfp|Gxtqr ."pc"C|qtum ej"quvtqxgej"c"x|K|tcgnk0|X" T"d flp |ftwj0

Bílý Potok [1a]<4:0XKK0/3;0XKKK04227."3" .3" *OV+0^a**Bukovec PR [2a]**<430X04228."3" *U Y +0^a**Ogcpft**{U o f²RT"|34.<60/450KZ04227."3" *OV+0^a**Minkovice [13]**<440X04228."3" *U Y +0^a**Paseky nad Jizerou [17]**<0KZ04229."3" *U Y +0^a**Tc-gnkp-k-v** |Lk|gtm{"PRT"|43.<3:0XK04227."3" *U Y +0^a**Tglfkeg**|45.<90/440KZ04227."3" *GV+0^a**rk am**"|25<460KZ04228."3" *U Y +0

*Atrichopogon**"Lophomyidium+"fusculus"*Eqswnkngv."3;23+

Rqw|g" rwdnkmqxc²" Āfc|g<D|n " Rqvqm|3c.<3;0XKKK0/60KZ04227."4" *OV+0^a Ogcpft{|U o f²RT"|34.<530X0/440X04227."3" .440X0/70XKK04227."3" .70/4;0XK04227."3" *x-g"OV+V>vjqx^a" ("Mpq|4228+0

Rcngctmvkem "ftwj.rqo tp |x|ep 0Rtxqp|ng|{"rtq" T|rwdnkmqxc²"x"rt^aek"V>vjqx^a" ("Mpq|" *4228+0

*Atrichopogon**"Meloehalea+"lucorum"*Ogki gp."3:3:+

Jqncctmvkem "ftwj0"X" T" c"x"qmnp|ej"uv gfgxqtqrum ej"uv^avgej"pgljqlp l-|" |^auvwreg"tqfw"*Atrichopogon*. Vcm²"x"Lk|gtum ej"jqt^aej"lgl" o flg o g"rxqcf|qxcv|c|l'gfpqj|q|"pgljqlp l-|ej" ftwj ."c'vq|lcm"rq vg o |'gfkpe ."vcm"l"rq vg o |'hqmcnkv0|Uc o keg|ucl|"jg o qn{| o hw"|gl o ²pc'pc'dtqw/e|ej"tqfw"*Meloe*."Nctx{"ug"x{x|gl|"xg"xnjm² o "rtquv gf|"k"xg"xqf 0

Bílý Potok [1a]<50/380X04227."3" .380X0/80XKK04227."3" *x-g"OV+V>430X04228."4" *U Y +=^a**[1b]**<530X04226."37" .40X04227."3" *x-g"U Y +=^a**[1e]**: 3;0/440X04228."8" *U Y +0^a**Bukovec PR [2a]**<3:0XK04227."6" *U Y +=^a**[2c]**<90X04226."6" *U Y +0^a**Frýdlant [3]**: 340X04228."5" .440X04228."8" *x-g"U Y +0^a**Jqtpf|Nw cp**{"77.<40XKK04227."3" *U Y +0^a**Horní Polubný [6]**<3:0XK04228."3" *U Y +0^a**Lgfngx** "f n"RT"|9.<380X0/80XKK04227."3" *OV+V>340XKK04227."6" *U Y +0^a**Mq gpqx**";<3:0XK04228."4" *U Y +0^a**Ogcpft**{U o f²RT"|34.<530X0/440X04227."5" *OV+0^a**Minkovice [13]**: 440X04228."3" .3" *U Y +0^a**Mníšek [14]**<4:0X04227."3" .37" *U Y +0^a**Qnf kejqx**"x"J |^aej"|37.<490X04226."35" *U Y +0^a**Plavy [18]**: 450X04228."3" *U Y +0^a**Raspenava [20]**: 330X04228."3" *U Y +0^a**Tc-gnkp-k-v** |Lk|gtm{"PRT"|43.<380X0/50XKK04227."3" *OV+V>3:0XK04227."3" .450X04227."3" *x-g"U Y +=^a70/4:0XKK04227."3" *RV+0^a**Tglfkeg**|45.<470X04227."32" *U Y +=^a520X0/380X04227."4" .70/4:0XKK04227."3" *x-g"GV+0^a**rk am**|47.<70/;0XKK04228."4" *|RV+0^a**U Kyselky [26]**<520K0/50X04229."3" *RV+0^a

*Atrichopogon**"Meloehalea+"oedemerum"Uvqt^o."3;5;

Fqpgf^axpc'd{n"rxqcf|qx^ap|c|jncctmvkem "ftwj0"R k'pgf^axp²"tgxk|k"rqftqfw"*Meloehalea* x-cm" d{nq"rtqm^a |^apq."flg"lq|l-|" gp"l"x"pgqvtqrkem²"qdcuvk"*V>vjqx^a"422: +0"X" T"l"x"qmnp|ej" uv^avgej"uv gfp|Gxtqr{"p^angf|l"m"rqo tp " cuvq"ug"x{um{vwl|e|o"ftwj o0|Uc o keg|ucl|"jg o q/n{| o hw"pc'dtqwe|ej"tqfw"*Meloe* k' r |dw|p ej"tqf 0"Nctx{"ug"x{x|gl|"xg"xnjm² o "rtquv gf|." pcr 0"x"j|p||fgej"rv^am 0

Bukovec PR [2a]<430X04228."3" *U Y +0^a**Frýdlant [3]**<340X04228."3" *U Y +0^a**Lgfngx** "f n"RT"|9.<80/4:0XKK04227."3" *OV+V>340XKK04227."4" *U Y +0^a**Tc-gnkp-k-v** |Lk|gtm{"PRT"|43.<450X04227."3" *U Y +=^a70/4:0XKK04227."3" *OV+0

Atrichopogon *Psammodopogon+"t^acxgqmw"\kn^ajk|Ugdguu."3;58"

CZ!

Rcngctmvkem "ftwj|p^a o " |g'ugf o k'gxtqrum ej"uv^av ."|cej{egp"tqxp fl"pc"Unqxpumw0"X"Lk|gt/um ej"jqt^aej"rqrtx²"|c|pc o gp^ap'pc"Ā|g o |" T0"Uc o keg"luqw"v² o "pgtq|nk-kvgnp²"qf"ftwjw"*Atrichopogon muelleri* *Mkghgt."3;27+0

Bukovec PR [2d]<360KZ0/90Z04227."3" *RV+0

Atrichopogon **Psammopogon*+*muelleri* *Mkghgt."3;27+

Rcngctmvkem "ftwj."x" T"fquwf"|p^ao "rqw|g|" gej."rqo tp "x|^aep "c"lgp"xcg"x{—fej"
rqncj^aej0

Bukovec PR [2d]< 360XK0/90X04227."3" *RV+0"**Mariánská Hora [11]**< 370X04227."3" *UY+0"**Minkovice [13]**<
440XK04228."3" *UY+0"**Plavy [18]**< 450XK04225."3" *UY+0"**Uo tm]**46c_< 520XK0/50X04229."3" *RV+0

*Atrichopogon***Psilokempia*+*forcipatus**Ykppgtv|."3:74+

Rcngctmvkem "ftwj"tq|—|gp "x"Gxtqr "c"pc"x ejqfp"^oUkdk k0"X" T|p^ao "rqw|g|" gej."
x|^aep l—|x um{v0"

Jqtp^oNw cp{']7_< 40XKK04227."3" *UY+0

Atrichopogon"ur0

Lgfkp^a|^oumcp^aucokeg"r gfuvxwlg"rtexf rqqdp "pqx "ftwj."pc"lgjqf|rqrkuw"ug"x"uqw cu/
p²"fqd "rtcewlg0"lg"v{rkem^axgnkeg"mt^avm o"rcnr^anp^o"o cmcfng o"u"v²o "mwnqkv o"v gv^o"o"
n^apmg o0

Ogcpft{Uo f²RT"]34_< 530X0/440XK04227."3" *OV+0

Bezzia *u0"uvt0+ *coracina* * \gvtugfv."3:72+

Ftwj"tq|—|gp "x"egn²o"rcngctmw."x" T|p^ao "rqw|g|" gej0

Tc-gnkp-v "Lk|gtm{PRT"]43_< 380XK0/50XKK04227."3" *OV+0

Bezzia *u0"uvt0+ *pygmaea* Iqgvi jgdwt."3;42

Ftwj"tq|—|gp "x"|^arcfp^o"rcngctmw."x" T|p^ao "rqw|g|" gej0

Ogcpft{Uo f²RT"]34_< 440XK0/70XKK04227."4" .70/4;0XKK04227."3" *x-g"OV+0"Tgfkfg"]45_< 70/4:0XKK04227."3" *GV+0****

Brachypogon **Isohelea*+ *incompletus* *Mkghgt."3;47+

CZ!

Rcngctmvkem "ftwj"pgl cuv lk"wx^af p "|Gxtqr{"mfg"d{n" cuvq"pgurt^axp "fgvgtokpqx^ap"rqf"
lqp ok"l^o2p{<"*Helea thienemanni* Oc{gt."3;62."*Ceratopogon lapiae* Encvutkt."3;83"pgdq"
C. perpusillus *Gfyctfu."3;43+0"D^oflg"q"v ejvq"pq o gpmcvtkem ej"q^a|m^aej"xk|"U|cf|kgyumk"
gv^ocm0*3; ;6+0Lgfp^aug"q"rtxqp^ang|{"rtq" T0"Dkqnikg"lg"rqfqp^alcmq"x"r rcf "ftwjw"*Brachy-*
pogon sociabilis *Iqgvi jgdwt."3;42+

Bílý Potok [1a]< 50/380XK04227."3" * [RV+0"**Lgfnqx "f n"RT"]9_< 340XKK04227."4" *UY+0"**Tc-gnkp-v "Lk|gtm{PRT"]43_< 3;0X0/50XK04227."4" .50/380XK04227."3" .70/4:0XKK04227."3" *x-g" [RV+=380XK0/50XKK04227."3" *OV+=340XKK04227."4" *UY+0****

Brachypogon **Isohelea*+ *nitidulus* *Gfyctfu."3;43+

Rcngctmvkem "ftwj"tq|—|gp "qf"|^arcfp^oGxtqr{"cfl"rq"F^anp "x ejqf."x" T"fquwf"lgfpq|pc p "
rtqm^a|^ap"lgj"q"x um{v"lgp"x" gej^aej0"Dkqnikg"lg"rqfqp^alcmq"w *B. sociabilis*.

Bílý Potok [1a]< 50/380XK04227."3" * [RV+0"**Lgfnqx "f n"RT"]9_< 340XK04227."4" *UY+=380XK0/80XKK04227."3" *OV+0"**Tc-gnkp-v "Lk|gtm{PRT"]43_< 380XK0/50XKK04227."3" .3" *OV+=380XK0/70XKK04227."3" .70/4:0XKK04227."3" *x-g" [RV+0"Uo tm"]46_< 340XK0/350XKK04228."3" *OV+0****

*Brachypogon***Isohelea*+*sociabilis* *Iqgvi jgdwt."3;42+

Rcngctmvkem "ftwj"|p^ao "|gl^o2pc"|"Gxtqr{"*Rqnumq."P o gemq."Htcpekq."Guvqpumq."Nkvxc."
Twumq^ocl0+0"X" T"d{n"fqwfr"rtqmc|cvgnp "|lk-v p"lgp"x" gej^aej0"X xql"rtqd^oj^a"x"|c o qm gp ej"

r f^aej | gl o²pc"x { --f^aej" rqnqj⁰ Fqur nek"ug"flkx"lpgmvctg o"mx v ."pcr⁰lg^adw"*Sorbus"ur r⁰+." l{x {"*Salix caprea+. "t {d{ |w"*Ribes ur r⁰+}c"jx |fpkeqxkv ej"*Cuygtcegcg+*Tg o o"3;96+0

Bílý Potok [1a]< 50XK0/380XKK04227."3" *OV+0**Bukovec PR [2a]**< 3:0XK04227."3" *UY+="{2c}< 430XK04228."3" *UY+0**Jedlový f nRT**]9< 380XK0/80XKK04227."4" *OV+0**Paseky nad Jizerou [17]**< ;0KZ04226."3" *UY+0**Raše-nkpk-v** "Lk|gtm{"PRT"}43< 3;0X0/50XK04227."8" .50/380XK04227."3" .5" .3;0XKK0/70KZ04227."3" *x-g"OV+="380XK0/70XKK04227."4" *RV+0

Ceratopogon communis Ogki gp."3:26"

Rcngctmvkem "ftwj"tq|-f gp "xg"uv gfp"l"ugxgtp"Gxtqr ."x" T"|p^a o "rqw|g|" gej⁰

Bukovec PR [2a]< 450XK04227."3" *UY+0**Jqtp** gtp"Uvwfpeg]6< 450XK04227."3" *UY+0**Jqtp** Nw cp{"J7< 40XKK04227."3" *UY+0**Tc-gnkp-v** "Lk|gtm{"PRT"}43< 3;0X0/50XK04227."4" *RV+="380XK0/70XKK04227."3" .4" *RV+0

Ceratopogon lacteipennis \gvgtuvfv."3:5:"

U<VU

Rcngctmvkem "ftwj"tq|-f gp "x"Gxtqr ." I t>pumw."pc"Mc p^atum ej"quvtqxgej."x" T"|p^a o "rqw|g|" gej⁰

Bílý Potok [1a]< 50/380XK04227."3" *OV+0**Lgfnqx** "f nRT"]9< 380XK0/80XKK04227."5" *OV+0**Tc-gnkp-v** "Lk|gtm{"PRT"}43< 50/380XK04227."6" .5" *OV+="70/4:0XKK04227."3" *RV+0**Tc-gnkp-v** "Lk|gt{"PRT"}44< 320/480XK04225."3" *OV+0

Ceratopogon naccinervis Dqtmgpv."3;9

Rcngctmvkem "ftwj"d flp "x"egn²Gxtqr ." f f^axg"wx^af p "rqf"u{pqp{og o"C. crassinervis I qv i jgdwt."3;420

Bukovec PR [2a]< 430XK04228."4" *UY+0**Tc-gnkp-v** "Lk|gtm{"PRT"}43< 50/380XK04227."3" *RV+="380XK0/70XKK04227."6" *OV+0**Tc-gnkp-v** "Lk|gt{"PRT"}44< 320/480XK04225."3" *OV+0

*Culicoides**Avaritia+ abchazicus F |jchctqx."3;86

Rq o tp "x|^aep "rcngctmvkem "ftwj"u"x um{vg o"lgp"xg"x { --f^aej" rqnqj^aej"x" |>p "lgjnk pcv ej" ngu "cfl"rq"r^auo"mququqf gxp{"\g"Unqxpumc"lgl"rtxp "wx^af"Qt|u^a i j *3;:2+0"

Tc-gnkp-v "Lk|gtm{"PRT"}43< 50/380XK04227."3" *OV+0

*Culicoides**Avaritia+ obsoletus *Ogki gp."3:3:+

Jqncctmvkem "ftwj"r^auo c"lgjnk pcv ej"ngu ." |p^a o " |x^afeg" |g o"uv gfp"Gxtqr {" cuvq"xgn ok" jqlp⁰"Uclg"pc" nqx mw."x xql"x"vgmqwe"ej"xqf^aej" k"x"vngl"e"ej"qti cpkem ej"n^avm^aej" c" |coqm/ gp ej"r f^aej⁰

Bílý Potok [1a]< 430XK04228."3" *UY+="4;0XKK0/3;0XKK04227."3" *OV+0**Bukovec PR [2a]**< 430XK04228."3" *UY+0**Ocn**"Uvtcpc"RT"]32< 40XKK04227."3" *UY+0**Mariánská Hora [11]**< 370Z04227."3" *UY+0**Ogcpft**{"U o f²RT" [12]< 530X0/440XK04227."4" *OV+0**Tc-gnkp-v** "Lk|gtm{"PRT"}43< 3;0XK04227."3" *UY+0**Tglfleg**]45< 470X04227."4" *UY+="50/380XK04227."3" *RV+0**U o tm**]46c< 40/430XK04227."3" *RV+="450KZ04228."3" *UY+0

Culicoides *Avaritia+ scoticus Fqypgu"gv"Mgvng."3;74

Rcngctmvkem "ftwj" |p^a o " |x^afeg"nqmcnk"x"Gxtqr⁰lgjq{nctx{"d{n{" |lk-v p{"x"rnqfpe"ej"jwd⁰" X" gej^aej" k"pc"Oqtex "d flp⁰

Mrk "m"]47< 420XKK04227."3" *UY+0

*Culicoides**Beltranmyia+ sphagnumensis Yknnk o u."3;77

Jqncctmvkem "ftwj" |p^a o " |nqmcnk"x" |>p" ngu "c"vcli {"0"Uc o keg"luqw"qtpkvq]np" jg o cvqh^a i qx²." nctx{"ug"rcvtp "x{x^agl"l"x"tc-gnkp-v"ej⁰Rq o tp "x|^aep "ftwj."x" T"fquwf" |lk-v p"lgp"x" gej^aej" *Pqxqp^a3;:9+0

Tc-gnkp-v "Lk|gtm{"PRT"}43< 380XK0/70XKK04227."4" .7" *OV+0

*Culicoides**u0"uvt0+ *fagineus* Gf yctfu."3;5;
Rncgctmvkem "ftwj" |p^a o " |glo²pc" |"gxtqrum ej"nqmcnk"x"qdcuvgej"nkuvpcv ej"ngu 0"Qrtqvk"
lkp o" |^auvwre o"rqftqfw"lg"lgjq"x um{v"x|^aep l-0" P^ang| {"x" T"luqw"lgp"qlgfkp n²."x"eg"
|p^a o "lg" |g"Unqxpumc"*Qtu|^a i j"3; :2+0"Uc okeg"p^angfi"m"jg o cvqh^a i p"o"rcmq o^ate o 0
Tc-gnkp-v "Lk|gtm{"PRT"}J43< 380XK0/70XKK04227."3" * [RV+0

Culicoides *u0"uvt0+ *griscens* Gf yctfu."3;5;
Rncgctmvkem "ftwj" |q| -f gp "xg"uv gfp"|"^arcfp"|"Gxtqr "x"qdcuvgej"u o f-gp ej"|"c"lgjnk pcv ej"
ngu 0"Uclg"pc" nqx mw"|"c"pc"x v-f"ej"jqurqf^a um ej"|"x" cvgej 0
Tc-gnkp-v "Lk|gtm{"PRT"}J43< 390XKK0/70KZ04227."3" *OV+0

Culicoides *u0"uvt0+ *impunctatus* I qgvi jgdwt."3;42
Rncgctmvkem "ftwj"ug" |c|pc o gpcp o"x um{vg o"x" |g o f"ej" Gxtqr {"k" Cukg0"X" T"|"x"qmnp"|"ej"
uv gfgxtqrum ej"uv^avgej"pc" xjqfp ej"dkvqrgej" fquvk" cuv ."x"qdcuvgej"u o f-gp ej"ngu "
D x^a" xgn o k" jqlp 0"Uc okeg"luqw" o c o cnkqLnp" jg o cvqh^a i qx²."pcrcfcl"|"e" cuvq"|"k" nqx mc0"
X xq|nctgx"xg"xqfp"|"o"rtquv g f"0

Bílý Potok [1a]< 430XK04228."3" *U Y +0"**Bukovec PR [2a]**< 4:0XKK04228."3" *U Y +=[2c]: 430XK04228."3" *U Y +0"
Jqtp" gtp"Uwfpk"j6.< 450XK04228."3" *U Y +0"**Jizerka [8]**< 440XK04228."9" *N+0"**Tc-gnkp**-v "Lk|gtm{"PRT"
[21]< 450XK04227."3" .3" *U Y +0"**Tglfleg [23]**< 70/4: 0XKK04227."7" *GV+0

Culicoides *u0"uvt0+ *pulicaris* *Nkppcgwu."397: +
Rncgctmvkem "ftwj." |p^a o " |" cf {" |g o f"|"uv gfp"|"Gxtqr {"0" Ocuqx "ug" x {um {vwlg"xg"uv gfp"|"ej"
rqnqj^aej"lgjnk pcv ej"ngu ."uclg"pc" nqx mw0
Ogcpft{"U o f²"RT"}J34< 440XK0/70XKK04227."3" .70/4: 0XKK04227."3" .4: 0XKK0/3: 0XKK04227."4" *x-g"OV+0"
Tglfleg]45< 520X0/380XK04227."4" .380XK0/80XKK04227."3" *x-g"GV+0"

Culicoides *u0"uvt0+ *punctatus* *Ogki gp."3:26+
Rncgctmvkem "ftwj." o cuqx "tq| -f gp "qf"p"flkp"rq"jtcpk"|"lgjnk pcv ej"ngu 0"p^a o " |" cf {" |g o f"
uv gfp"|"Gxtqr {"uclg"pc" nqx mw0
Tc-gnkp-v "Lk|gtm{"PRT"}J43< 380XK0/70XKK04227."3" * [RV+0

*Culicoides***Oecacta*+ *albicans* *Ykppgtv|. :3:74+
Rncgctmvkem "ftwj" |q| -f gp "x" |^arcfp"|"c"uv gfp"|"Gxtqr 0"Rq o tp "x" |^aep ."uclg"mtgx0
Bukovec PR [2b]< 4: 0X04226."3" *U Y +0

Culicoides **Oecacta*+ *fascipennis* *Uvcigt."3:5; +
Jqncctmvkem "ftwj"x {um {vwl"|"e"ug"qf"p"flkp"rq"r^auoq"u o f-gp ej"ngu 0"p^a o " |" cf {" |g o f"
Gxtqr {"cmvxp "pcrcf^a" nqx mc0
Bílý Potok [1a]< 3: 0XKK0/60KZ04227."3" *OV+0"**Horní Polubný [6]**< 3: 0XKK0/60KZ04227."3" *U Y +0"**Ogcpft**{"U o f²"
PR [12]< 530X0/440XK04227."3" .3" .4: 0XKK0/3: 0XKK04227."4" .4" *x-g"OV+0"**U o tm**]46c.< 40/430XK04227."
44" * [RV+0

Culicoides **Oecacta*+ *festivipennis* Mkgghgt."3:36
Rncgctmvkem "ftwj" |q| -f gp "qf" Gxtqr {"rq"lcrqumq"x"nkuvpcv ej"ngu"|"ej" |p^a o " |" cf {" |g o f"
uv gfp"|"Gxtqr {"0" QtpkvqLnp"|"ftwj 0
Ogcpft{"U o f²"RT"}J34< 440XK0/70XKK04227."3" *OV+0

*Culicoides *Oecacta+ kibunensis* Vqmwpic."3;59

Jqncmvmek "ftwj"tq|-f gp "x"Xgtqr 0"X{um{vwlg"ug"xg"uv gfpf"ej"rqnjq"ej"x"nkuvpcv ej"cuo"o/f/ -gp ej"ngu"ej"."cmvxp "uclg"mtgx0

Bílý Potok [1a]< 70/4;0XKK04227."4" *U Y += [1b]< 40XKK04227."3" *U Y +0"

*Culicoides *Oecacta+ pallidicornis* Mkgghgt."3;3;

Rcngctmvmek "ftwj"tq|-f gp "x"|"a rcfp"cu"uv gfp"Xgtqr 0"X"nkuvpcv ej"cuo"o/f/-gp ej"ngu"ej"."cmvxp "pccrf"nqx mcl0

Bílý Potok [1b]< 40XKK04228."3" *U Y +0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}**143**< 70/4:0XKK04227."3" * [RV+0"

*Culicoides *Oecacta+ segnis* Ecorgn"gv"Rgnjco/Enkpvqp."3;82

Rcngctmvmek "ftwj"tq|-f gp "x"|"a rcfp"ugxgtp"cu"uv gfp"Xgtqr "u"x um{vg"o"x"|cngup p ej" qdncuvej0"QtpkvqLnp"ftwj."r |ngflkvqup "pccrf"nqx mcl0

Ogcpft{"Uo f²RT"}134****< 530X0/440XKK04227."3" .440XKK0/70XKK04227."3" *OV+0" **Tglfieg**]**145**< 70/4:0XKK04227."3" *OV+0"

*Culicoides *Oecacta+ subfasciipennis* Mkgghgt."3;3;

Rcngctmvmek "ftwj"tq|-f gp "x"|"a rcfp"cu"uv gfp"Xgtqr ."qf"p"flkp"rq"r"u"o"q"u"o"o/f/-gp ej"ngu" 0" Uclg"pc" nqx mw."cng"pgp"o"cuqx "tq|-f gp 0

Ogcpft{"Uo f²RT"}134****< 440XKK0/70XKK04227."4" *OV+0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}**143**< 390XKK0/70KZ04227."3" *OV+0" **Tglfieg**]**145**< 70/4:0XKK04227."4" *GV+0

*Culicoides *Oecacta+ ur. chh0 pallidicornis*

Xg"ud tgej"|"Lk|gtm ej"jqt"K"ht fncpvumc"lu"og"r"qo"tp "cu"vq"pcn²|cnk"ftwj"dn"eg"r"fdw|p" ftwj o"umwrkp{"*C. pallidicornis*."nk-"e"ug"qf"x-gej"ftwj "v²vq"umwrkp{"m"fn{"dg|"d"n ej" umxtp"cu"ux²t"p"vwx" gp o"ugpuqtkg"o"pc"50" n"pnw"o"cmcfgn"uc"okeg0"X"lgjq"uvfwk"dwf"fg"ng" r"qmtc qx"pq"cu"ng fm{"dwfqw"fqf"evp p"rwdnkmqx"ap{0

Ogcpft{"Uo f²RT"}134****< 4:0XKK0/3:0XKK04227."3" *OV+0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}**143**< 380XKK0/70XKK04227."4" * [RV+0" **Tglfieg**]**145**< 520X0/380XKK04227."3" .380XKK0/30KZ04227."3" .30/440KZ04227."3" *x-g"GV+0

Dasyhelea"*u0"uvt0+"*pallidiventris*"* Iqgvi jgdwgt."3:53+" **B!**

Rcngctmvmek "ftwj"tq|-f gp "x"Xgtqr ."x" T"|"p"o" "rqw|g"|"Oqtcx{0" cu"vq"pcej"|"gp"r"ku"ap" - "x{"uvtqo 0

Bílý Potok PR [1b]< 40XKK04227."3" *U Y +0"

Dasyhelea"*u0"uvt0+"*septuosa*"Dqtmgpv."3; ;9" **B!**

Ftwj"tq|-f gp "x"|"a rcfp"o"ku"ejqfp"o"rcngctmwv."x" T"|"p"o" "rqw|g"|"Oqtcx{0" cu"vq" pcej"|"gp"r"ku"ap"- "x{"|g"uvtqo 0"X"pgf"xp²"fqd "d{n"vgpvq"ftwj"u"pqp{ok|qx"ap"*U|cf/ |kgyumk" ("Fqokpkm"4228+"c"rcvyp²"l"o²pq"lg" F0" t"cxkhtqpu"* Iw²tkp."3:55+."pke"o²p"pgrwd/ nkmqxc²"x ng fm{"*C0"V»vjqx" .pgrwdn0+"cpn |"FPC"rqvxt|w|"xcnkfkvw"v "rtqdn"ocvkek ej" ftwj "**D. versicolor*; *D. septuosa*, *D. saxicola*+0"Rtxqp"ng|{"rtq" gej{0

Bílý Potok [1a]< 430XKK04228."3" *U Y += 4:0XKK0/3:0XKK04227."3" *OV+0" **Frýdlant [3]**: 440X04228."3" *U Y +0" **Horní gtp**"Uwfpieg"]**16**< 450XKK04228."3" *U Y +0" **Lgfngx "f r"RT"]**9****< 3;0/520X04227."3" * [RV+0" **Ogcpft{"Uo f² PR [12]**< 440X0/70XKK04227."3" *OV+0" **Plavy [18]**< 450XKK04228."35" *U Y +0" **Tglfieg**]**145**< 470X04227."3" *U Y += 520X0/380XKK04227."3" .3" * [RV+0" 380XKK0/80XKK04227."4" .4:0XKK0/380XKK04227."3" *x-g"GV+0

*Dasyhelea***Dicryptoscena*+*modesta**Ykppgtv|.3:74+u0"n0

Umwrkpc"rcngctmvkem ej"ftwj "fquwf"tq|nk-kvgnp ej"lgp"rqfng"igpkv^ank^l"uc o e 0"Nctx{"ug"x{x|gl|g|
xg"xnjm²"r f "r k'd g|e|j"t{dp^lm "c"lg|gt0

Bílý Potok [1b]< 530XK0/4226."3" *dg|"igpkv^ank^l."3" *U Y +0 **Bukovec PR [2c]**< 430XK0/4228."3" *U Y +0 **Meandry U o f²RT**]34< 440XK0/70XKK0/4227."3" *OV+0

Dasyhelea **Pseudoculicoides*+*tcxquewvgm^{cvc}**\gyvgtv^gfv."3:72+u0"n0

Umwrkpc"x|eg"ftwj ."mvg^t"lg"oqflpq"dg|rg p "wt kv"lgp"rqfng"igpkv^ank^l"uc o e 0

Ogcpft{**U o f²RT**]34< 3;0/530XK0/4227."4" * [RV+0 **Tc-gn^lpk-v** "Lk|gtm{"**PRT**]43< 380XK0/70XKK0/4227."3" *
*OV+=4:0XKK0/390XKK0/4227."3" * [RV+0

*Dasyhelea***Prokempia*+*lutea*"Tg o o."3;8:"

CZ!

Rcngctmvkem "ftwj"|p^a o "|Wmtlcp{0"Rtxqp^ang"rtq" T."ftwj "p^ang|x"Gxtqr "qf"fcvc"rq^rkuw0"
Tc-gn^lpk-v "Lk|gtm{"**PRT**]43< 50/380XK0/4227."3" *OV+0

*Forcipomyia***Caloforcipomyia*+*glauca*"OceŁg."3;56

Ftwj"u"x um{vg o"x"j qnctmvkem²"c"pgqvtqrkem²"qdcu^wk."x" T"|p^a o "lgp"|" gej0

Tc-gn^lpk-v "Lk|gtm{"**PRT**]43< 4:0XKK0/390XKK0/4227."3" *OV+=4:0XKK0/4227."3" *U Y +0

*Forcipomyia***Euprojoannisia*+*alacris**Ykppgtv|.3:74+

Rcngctmvkem "ftwj"|p^a o "|g"uv gfp^l"c"x ejqfp^l"Gxtqr{"u" kf-^lo"x um{vg o0"Nctx{"vqj^qvq"
rqftqfw"ug"x{x|gl|g|^l"x"ug okcmxcvkem ej"jcdkvcvgej"pc"rqxtejw"umcnkugm"pgdq"x{u{ejcl^l/
e|ej"dn^cv"rq^tquwⁿ ej" cuc ok."x" o qm^t2 o" o gejw." o qm^t2 o"qrcfc^p2 o"nku^vl."xg"uvqpe^lej"tquwⁿkp"
k"x"ejq o^a "ej"qfw o"tcl^le^l"xqfp^l"xg igvce^gpc"tq|j tcp^l"uq^w-g"c"xqfp^l"p^a f^tflg+0" Fqur nek"ug"
flx^l"pgm^vctg o"|mx v "p mvg^t ej"tquwⁿkp"c"rnp^l"vc^m"hwpmek"qr{ⁿqxc 0"X"vtqrkem ej"qdcu^wvgej"
luq^w rcv^t "lgf^kp ok"j o{|^lo^k"qr{ⁿqxc k^lmc^mcqxp^lm "D{^uvtcm (" Yktv^j"3;9:+0"X"pc-g o"
xg igv^c p^lo"r^auow"r krcfcl^l"x^axcjw"lcm^qqr{ⁿqxc k^lo tmxq^xkv ej"*F^cw^ecege^g+.r^lo²f mc|{"
q"vq o"x-cm"fq^wf"pg o^a o g0

Bílý Potok [1a]< 50/380XK0/4227."3" *OV+0 **Ogcpft**{**U o f²RT**]34< 60/3;0X0/4227."3" .440XK0/70XKK0/4227."3" *
*OV+0 **Qnf lej qxum²ugf^lq**]38< 70Z0/4227."3" *U Y +0 **Tglfleg**]45< 380XKK0/30KZ0/4227."3" * [RV+0

*Forcipomyia***Euprojoannisia*+*titillans**Ykppgtv|.3:74+

Jqnctmvkem "ftwj."x"Gxtqr "k"x" T"|egnc'd flp ."p^lg^l cu^v lk"jn^a-gp "|^auw^vreg"rqftqfw"*Euprojoannisia*.

Bílý Potok [1a]< 380XK0/70XKK0/4227."5" .3;0XKK0/60KZ0/4227."4" *x-g"OV+=**[1c]**< 3;0/440XK0/4228."3" .3" *
*U Y +0 **Lgfnqx "f nRT**]9< 340XKK0/4227."3" *U Y +=520X0/380XK0/4227."6" .380XK0/80XKK0/4227."3" .80/4:0XKK0/4227."
5" .4:0XKK0/430XKK0/4227."4" .4" .30/440KZ0/4227."3" .;" *x-g"OV+0 **Tc-gn^lpk-v** "Lk|gtm{"**PRT**]43<
70/4:0XKK0/4227."3" *RV+=390XKK0/70KZ0/4227."3" *OV+0 **Tglfleg**]45< 70/4:0XKK0/4227."3" .380XKK0/30KZ0/4227."
5" .90/440KZ0/4227."5" *x-g"GV+0 **U o tm**]46< 40/430XK0/4228."3" .430XK0/350XKK0/4228."3" *x-g"OV+=**[24b]**<
420XK0/4228."3" *U Y +0 **rk^am**]47< 420XKK0/4227."3" .460KZ0/4228."3" *x-g"U Y +0

Forcipomyia **Euprojoannisia*+*phlebotomoides*"Dcpigtvtg."3;55

Rcngctmvkem "ftwj."x" T"|p^a o "rqw|g|" gej."lgjq^l"f^gvgt okpce^g"lg" cu^vq^lq^vflp^a"mx nk"ej{|
d^le^lo"uc o e o"u^v{rkem o"j{rqr{ikg o0"Uc o keg"luq^w"v flmq^lq^fnk-kvgnp²"qf"qucvp^lej"ftwj "
rqftqfw0

Tglfleg]45< 70/4:0XKK0/4227."3" *GV+0

*Forcipomyia**u0|uvt0+*bipunctata**Nkppcgwu."3989+

Jqncmvmkem "ftwj"u"x um{vg o"xngup|ej"kvgrp|ej"qdcncuvej."|p^a o "| cf{| |g o|uv gfp|Gxtqr {0"
Nctx{"d{n{| |lk-v p{|x"vtwuw"ur^atmcv²|x g"l"kg"xqf|o"rtquv gf|Uc okeg"ug^aflkx|pgmvtc o"
mx v "t |p ej"tquvnp"kvjg oqn{ohqw}lkp²j|q"j o{|w0}D flp "ftwj."x"lk|gtum ej"jqt^aej"d{n"
|lk-v p"r gmxcrcx "lgp"pc"p mqnkmc"nqmcnk^aej0

Bílý Potok [1a]< 4; 0XKK0/3; 0XKK04227."3" .3; 0XKK0/60KZ04227."6" *x-g"OV+0"**Mq gpqx**";< 3; 0XK04228."3" *U Y +0"
Ogcpft{U o f²RT"**J34**< 60/3; 0X04227."3" *OV+0"**Tglfleg**"**J45**< 380XK0/80XKK04227."4" .70/4; 0XKK04227."4" ."
4; 0XKK0/380XKK04227."7" .90/44KZ04227."3" *x-g"GV+0"U o tm"**J46c**< 340XK0/350XKK04228."3" .3" *OV+0

*Forcipomyia**u0|uvt0+*brevipennis**Oceswctv."3:4: +"

Jqncmvmkem "ftwj"u"x um{vg o"pc"nqmcnk^aej"x" |cngup p ej"cvgrp|ej"qdcncuvej0"X"Gxtqr "
|egnc"d flp ."x" T"|lk-v p^v2 o "xg"x-gej"|mqw ocp ej"A|g o|ej0"X"lk|gtum ej"jqt^aej"pcng|gp"
rqw|g"pc"v gej"nqmcnk^aej0

Lgfngx "f r"RT"**J9**< 4; 0XKK0/430XKK04227."3" *OV+0"**Tc-gnkp**-v "Lk|gtm{"**PRT**"**J43**< 4; 0XKK0/390XKK04227."3" "
*OV+0"**Tglfleg**"**J45**< 380XKK0/30KZ04227."3" *GV+0

*Forcipomyia**u0|uvt0+*ciliata**Ykppgtv|."3:74+

D flp "jqncmvmkem "ftwj."|p^a o "|x|eg"|g o|uv gfp|Gxtqr {0

Bílý Potok [1a]< 4; 0XKK0/3; 0XKK04227."3" *OV+0"**Mq gpqx**";< 3; 0XK04228."3" *U Y +0

*Forcipomyia**u0|uvt0+*lugubris* * \ gwgtuvfv."3:77+

CZ!

O^anq"|p^a o "rcngctmvmkem "ftwj"rqrucp " |g"tm^x2func0" Tgfgumtkrek"ngevqv{rw"uc okeg"rtqxfn"
U|cf|kg y umk^a3; :8+."uc oge"ppp|p^a o 0"Rtxqp^ang|"rtq" T0

Tc-gnkp-v "Lk|gtm{"**PRT**"**J43**< 4; 0XKK0/390XKK04227."3" * [RV+0

*Forcipomyia**u0|uvt0+*hygrophila*"Mkghgt."3:47

Jqncmvmkem "ftwj"x{um{vw|e|ug"xngup|ej"qdcncuvej0"D flp "ftwj"|p^a o "|o p|jc"|g o|uv gfp|Gxtqr {0

Horní Polubný [6]< 4; 0XKK0/3; 0XKK04227."3" *OV+0"**Bukovec PR [2c]**< 90XK04226."3" *U Y +0

*Forcipomyia**u0|uvt0+*kaltenbachii**Ykppgtv|."3:74+

Rcngctmvmkem "ftwj"wx^af p " |gl o²pc"|"Gxtqr {"F^anp²j|q"x ejqfw" c"|"Mcp^atum ej"quvtqx 0"
X" T"lg"|p^a o "|x|eg"nqmcnk0"X xql"rtqd|j^axg"xqf|o"rtquv gf|0

Bílý Potok [1a]< 4; 0XKK0/3; 0XKK04227."4" *OV+0"**Tc-gnkp**-v "Lk|gtm{"**PRT**"**J43**< 3; 0X0/50XK04227."3" *U Y +0

*Forcipomyia**u0|uvt0+*nigra**Ykppgtv|."3:74+

Rcngctmvmkem "ftwj"u^v flk-v o"tq|-|gp|x"Gxtqr "cfl"uv gfp|Cukko"Xg"uv gfp|Gxtqr "x gvp" T"d flp "
ftwj0"lgjq"nctx{"d{n{| |lk-v p{|x"rnqf|pke|ej"jwd0"Uc okeg"ug^aflkx|jg oqn{ohqw}lkp²j|q"j o{|w0

Lgfngx "f r"RT"**J9**< 340XKK04227."3" *U Y +=3; 0/520X04227."5" .520X0/380XK04227."3" .4; 0XKK0/430XKK04227."
7" .30/44KZ04227."9" *x-g"OV+0"**Tc-gnkp**-v "Lk|gtm{"**PRT**"**J43**< 3; 0/520X04227."3" *OV+0"**Tglfleg**"**J45**<
380XKK0/30KZ04227."4" *GV+0"U o tm"**J46c**< 40/430XK04228."3" *OV+0

*Forcipomyia**u0|uvt0+*nigrans* Tgo o."3:84"

B!

X|^aep l-|"rcngctmvmkem "ftwj."tq|-|gp "x"r vk"uv^avgej"Gxtqr {"c"pc" F^anp² o"x ejqf ."x" T"
|p^a o"|c|o"rqw|g"|"À|g o|Oqtcx{0"Rtxqp^ang|"rtq" gej {0

Frýdlant [3]< 340X04228."3" *U Y +0

Forcipomyia *u0|vvt0+ *radicola* Gf yctfu."3;46
Rcngctmvkem "ftwj"x{um{vwl|e|"ug"x"egn2"Gxtqr 0
Tg|fkeg]45<4:0XKK0/380XKK04227."3" *GV+0"

*Forcipomyia**u0|vvt0+ *sphagnophila* Mkgghgt."3;47" **CZ!**
Jqncctmvkem "ftwj"."fquwf"|p^ao "|r vk"uv^avw"Gxtqr {0"X{um{vwl|g"ug"x"qmqn|"o qm cf "c"tc-gnkp- 0"
Pc"À|g|g o|" T"lg|c|pc o gp^ap"rqrtx20
Lgfnqx "f n"RT]9<80/4:0XKK0/4227."7" .30/440KZ04227."3" *x-g"OV+0"

Forcipomyia *u0|vvt0+ *tenuis* *Ykppgtv|. "3:74+
Rcngctmvkem "ftwj"u"tq|-|gp|"o"qf"Gxtqr {"rq"Fa"np "x ejqf."x" T"d flp 0
Bílý Potok [1a]<3;0XKK0/60KZ04227."4" *OV+0

*Forcipomyia***Lasiohelea*+ *velox* *Ykppgtv|. "3:74+
D flp "rcngctmvkem "ftwj."tq|-|gp "x"egn2"Gxtqr 0"Uc o keg"x-gej|"^auvwre "rqftqfw"*Lasiohelea*
luqw"jg o cvqh^a i p|. ucl|e|"mtgx"qdtcvnqxe 0"*F. velox* uclg"mtgx"pc"qddflkxgnp|e|ej"rnc|gej0
Ogcpft{Uo f2"RT]34<60/3;0X04227."3" .4;0XKK0/3;0XKK04227."3" .3" *x-g"OV+0"

*Forcipomyia***Lepidohelea*+*tibialis*"Tg o o."3;83
Rcngctmvkem "ftwj."tq|-|gp "xg"uv gfp|"c"x ejqfp|"Gxtqr ."x"ugxgtp|"Chtkeg."x" T"|p^ao "
rqw|g|" gej"*V>vjqx^ag"v"cn0"4226c+0"
Lgfnqx "f n"RT]9<3;0/520X04227."3" .80/4:0XKK04227."3" .4:0XKK0/430XKK04227."49" *x-g"OV+0

Forcipomyia **Synthyridomyia*+ *murina* *Ykppgtv|. "3:74+**B!**
Rq o tp "d flp "rcngctmvkem "ftwj"|p^ao "|kflp|"c"uv gfp|"Gxtqr {"Dn|"m2jq"x ejqfw"c"ugxgtp|"
Chtkm{0"X" T"fquwf"|p^ao "lgp|"Oqtex{0"Rtxqp^ang|"rtq" gej{0"
Bílý Potok [1a]<3;0XKK0/60KZ04227."3" *OV+0"**Bukovec PR [2c]**<430XK04228."3" *UY+0"**Ogcpft{Uo f2"RT]**
[12]<3;0/530X04227."3" *OV+0

Forcipomyia **Thyridomyia*+ *monilicornis* *Eqswnkngv."3;27+
Jqncctmvkem "ftwj"x{um{vwl|e|"ug"x"|>>p "lgjnk pcv ej"ngu ."|c|pc o gp^ap"x"p mqnkmc|g o |ej"
uv gfp|"Gxtqr {0
Tg|fkeg]45<520X0/380XK04227."4" *GV+0

*Forcipomyia***Trichohelea*+*eques*"*Lqjcppugp."3;2: +
Jqncctmvkem "ftwj"x{um{vwl|e|"ug"x"ngup|e|"qdncuvej."x" T"|p^ao "rqw|g|" gej0
Tc-gnkp-v "Lk|gtm|"PRT]43<50/380XK04227."3" *OV+0

Neurohelea luteitarsis"Ycnvn."3:59"
Rcngctmvkem "ftwj."|p^ao "|g" v{ "uv^av "Gxtqr {"x" P o gemw"rqxcflqxcp "|c"x{o gn 0"Lfg"
q"x |pc o p2"p^ang| {"egnqgxtqrum{"xgn o k"x|"^aep2jq"ftwjw"rdnkmqxcp2"lkfl"lcmq"rtxqp^ang| {"rtq"
T"x"rt^aek"V>vjqx^a" ("Mpql|"*422: +0"Nctx^anp|"uv^afk"pg|p^ao^a)
Bílý Potok [1a]<50/380XK04227."7" *OV+0"50/380XK04227."4" .36" * [RV+0"430XK04228."4" *UY+0"**Horní**
gtp^a"Uwfpieg]6<450XK04228."3" *UY+0"**Horní Polubný [6]**<3;0XK04228."3" *UY+0

*Palpomyia distincta** Jcnkfc{.3:55+

Rcngctmvkem "ftwj."x" T"|p^ao"|"x^fegⁿqmcnk^w0"Uc o keg^luq^wkpugmvkxqtp^f"rtgf^avq k0"Nctx{"fkl^f"
x"oqm c fgej."r k'd g|^fej^t{dp^flm "c^v p^f0"

Bílý Potok [1a]< 380XK0/70XKK04227."3" .4" *OV+=430XK04228."5" .3" *UY+0^{Bukovec PR [2a]}<450XK04227."3" *UY+0^{Jqtp^f} gtp^a"Uvwf^fkeg^l6<450XK04227."4" .4" *UY+0^{Horní Polubný [6]}<3;0XK04228."3" *UY+0^{Lgfnqx} "f n^{RT}"]9<340XKK04227."4" *UY+0^{Ogepft}{Uo f²RT"]34<70/4:0XKK04227."3" *OV+0^{Plavy [18]}<450XK04228."4" *UY+0^{Tc-gn^{pk}-v} Lk|gtm{"PRT"]43<70/4:0XKK04227."3" *OV+0^{Tglf^{eg}}]45<50/380XK04227."3" * [RV+=380XK0/70XKK04227."3" .8" .70/4:0XKK04227."4" .380XKK0/30KZ04227."3" *x-g^{GV}+0

*Palpomyia t^{cx}rgu**Ogkigp."3:26+."u0"n0

Rcngctmvkem "ftwj."|p^ao"|"Gxtqr{."Cmxmc|w."F^anp²jq"x ejqfw" c"Mc^pa^{tum} ej"quvtqx ."d flp "ftwj0

Bílý Potok [1a]< 430XK04228."7" .3" *UY+0^{Bukovec PR [2a]}< 450XK04227."4" *UY+=^[2c]<430XK04228."4" *UY+0^{Jqtp^f} gtp^a"Uvwf^fkeg^l6<450XK04228."6" *UY+0^{Lgfnqx} "f n^{RT}"]9<3;0/520X04227."3" .380XK0/80XKK04227."3" *x-g^{OV}+0^{Mq gpqx}];<3;0XK04228."4" *UY+0^{Ogepft}{Uo f²RT"]34<530X0/80XKK04227."3" *OV+0^{Plavy [18]}<450XK04228."4" *UY+0^{Poustecká obora [19]}<440XK04228."3" *UY+0^{Tc-gn^{pk}-v} Lk|gtm{"PRT"]43<4:0XKK0/390XKK04227."3" * [RV+0^{Tglf^{eg}}]45<380XK0/80XKK04227."3" * [RV+=380XK0/70XKK04227."4" .4" .70/4:0XKK04227."3" .9" .4:0XKK0/380XKK04227."4" .90/440KZ04227."3" *x-g^{GV}+0^{Uo tm}]46d<420XK04228."3" *UY+0

Palpomyia globulifera Tgo o."3:93"

CZ!

Rcngctmvkem "ftwj"|p^ao"|"x ejqfp^f"Gxtqr{"c^Fa^{np}2jq"x ejqfw0\c^fo"pgd{n^jn^a-gp"}|À|g o^f"
T.p^ang|{"|Lk|gtum ej"jq^t"luq^wrtxp^fo^krwdnk^mqxc^p o^kÁ^fcl^k"|} T0

Lgfnqx "f n^{RT}"]9<380XK0/80XKK04227."3" *OV+0^{Plavy [18]}<450XK04228."3" .4" *UY+0^{Tc-gn^{pk}-v} Lk|gtm{"PRT"]43<450XK04227."5" *UY+0

Palpomyia luteifemorata Gf yctfu."3:48

Rcngctmvkem "ftwj"x{um{vwl^fe^f"ug"xg^{uv}gf^p"Gxtqr ."x" T"|p^ao "rqw|g"|"gej."rqo tp "x|^aep 0

Tglf^{eg}]45<70/4:0XKK04227."3" .4:0XKK0/380XKK04227."3" *x-g^{GV}+0

Palpomyia melacheira Tgo o."3:98"

B!

Rcngctmvkem "ftwj"rqrucp"|"quvtqxc^Ucejcnkpw0^{Rqfng}"igpkv^ank^f"q^rrx^f"f^a"lgf^{gp}uc o ge^{pcng}|gp "pcⁿqmcnk^v "Tglf^{eg}"rnp "vq o wvq^fftwjw0^Xpgf^axp²"fqd "d{n" |lk^{-v} p^{vcm}2^{pc}"Oqt^{cx} *V>>vjqx^a"
gv^{cn}0"4226d+0^{Pqx} "ftwj"rtq" gej {0

Tglf^{eg}]45<70/4:0XKK04227."3" *GV+0

*Palpomyia nigripes**Ogkigp."3:52+

Rcngctmvkem "ftwj"ug"x|^aep l-^fo"x um{vg o"x" T0^{Rqfqdp} "lcmq^w quvcv^fej"ftwj "vtkdw"
Rcnrq o {k^{pk} luq^wuc o keg^lkpugmvkxqtp^fo^krtgf^avqt {0^{Nctx} {"fkl^f"x^vgmqwe^fej^k"u^wqlcv ej"xq^fa^{ej}"
c^{flkx^f}"ug^fctcx "ftqdpq^wdgpvkemq^wh^{cw}pq^w0

Horní Polubný [6]<3;0XK04228."3" *UY+0^{Plavy [18]}<450XK04228."3" *UY+0^{Poustecká obora [19]}<440XK04228."6" *UY+0^{Tc-gn^{pk}-v} Lk|gtm{"PRT"]43<450XK04227."3" *UY+0^{Tc-gn^{pk}-v} Lk|gt{"PRT"]44<450X04227."3" .4" 450XK04227."3" .4" *x-g^UY+=320/480XK04225."3" *OV+0^{Tglf^{eg}}]45<380XK0/70XKK04227."3" * [RV+=70/4:0XKK04227."3" *GV+0^{X^aen^{cf}m^{qxc}}Uvwf^apmc"]49<3;0XK04228."3" .5" *UY+0

*Palpomyia serripes**Ogkigp."3:3:+" **B!**

Rcngctmvkem "ftwj."x" T"|p^ao "rqw|g"|"Oqt^{cx}{0^{Pqx} "ftwj"rtq" gej {0

Bílý Potok [1a]< 430XK04228."3" *UY+0" **Jqtpf** gtp^aUvwfpleg]6< 450XK04228."3" *UY+0" **Ogcpft**{Uo f²RT" [12]< 530X0/440XK04227."3" .440XK0/70XKK04227."4" *OV+0" **Minkovice [13]**< 440XK04228."3" *UY+0" **Tc-gnkp**-v " Lk|gt{"**PRT**"}44< 450XK04227."7" *UY+0" **Tglfleg**]45< 380XK0/80XKK04227."9" *GV+0

*Palpomyia spinipes**Rcp|gt."3:28+

CZ!

Rcngctmvkem "ftwj|p^ao |"cf{"gxtqrum ej"uv^av .x gyp "Unxqgpumc0"\ " T"pgd{"n"fqwf"jn^a-gp0" Dkqnqikg"rqfqdp^a"lcmq"v"*P. distincta*.

Bílý Potok [1a]< 50/380XK04227."3" * [RV+0" **Lgfnqx** "f n"RT"]9< 80/4:0XKK04227."3" .4" *OV+0" **Tc-gnkp**-v " Lk|gtm{"**PRT**"}43< 380XK0/70XKK04227."7" .32" .70/4:0XKK04227."3" *x-g"OV+=380XK0/70XKK04227."32" .;" .70/4:0XKK04227."3" .3" *x-g" [RV+0" **Tglfleg**]45< 520X0/380XK04228."4" .380XK0/70XKK04227."4" .70/4:0XKK04227."3" *x-g"GV+0

*Pygobezzia albicornis**Ogkigp."3:3:+

Ftwj|p^ao |g|"rcfp|"k"x ejqfp" cuv^krcngctmvkem²"qdcuvk."|lk-v p "vcm²"x" gej^aej" k"pc"Oqtex "c"xqmqnpfej"uv gfgxqtqrum ej"uv^avgej0"Uc o keg"luqw"kpugmvkxqtpf."hctx{"ug"x{x|glf" xg"xqfpf|"rtquv gf|"X"lk|gtum ej"jt^aej"|lkuv p"lgp"pc"fxqw"nqmcnk^aej0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}43< 380XK0/70XKK04227."3" *OV+0" **Tglfleg**]45< 70/4:0XKK04227."3" *GV+0

*Schizohoelea leucopeza**Ogkigp."3:26+

Jqncctmvkem "ftwj|p^ao |"x"leg"nqmcnk"x" gej^aej"lk"pc"Oqtex 0"Nctx{"fkl|"|rtcxkfn"cx"ugok/ cmxcvkm²o"rtquv gf|"oqm cf "r k'd g|fej"t{dpf|m "crqf0

Bílý Potok [1a]< 50/380XK04227."4" .380XK0/70XKK04227."8" *x-g"OV+=50/380XK04227."3" * [RV+=430XK04228."6" *UY+0" **Lgfnqx** "f n"RT"]9< 380XK0/80XKK04227."4" *OV+0" **Ogcpft**{Uo f²RT"}34< 440XK0/70XKK04227."5" *OV+0" **Poustecká obora [19]**< 440XK04228."6" *UY+0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}43< 70/4:0XKK04227."3" *RV+0" **Tglfleg**]45< 380XK0/80XKK04227."3" *OV+0

*Serromyia femorata**Ogkigp."3:26+

Jqncctmvkem "ftwj0"X"Gxtqr "pgl cuv lk"|c|pcogp^axcp "|a"uvwreg"tqfw."x" T"jn^a-gp "|x"leg" nqmcnk0"Xg"uv gfp|"c"lkfp|"Gxtqr "rcej^a|f"x v-kpc"p^ang| "|jqtum ej"cx"rqfjqtum ej"qdcuvf0" Nctx{"ug"x{x|glf"pgl cuv lk"x"oqm cfgej"cx"rqfo^a gp ej"r f^aej"r k'd g|fej"xqfpf|ej"p^aftf0" Fqur nek"luqw"kpugmvkxqtpf"rtgf^avq k."uc o keg"r k"r^a gp"rqquwvwp "rqf|tclf|k"ucog mc"*Gfyctfu" 3;48+. "cng"rqfng"p mvgt ej"rq|qtqx^ap"ug"o qjqw"flkxkv"l"pgmvctg0"|"mx v "tquvnp0

Bílý Potok [1a]< 380XK0/70XKK04227."3" *OV+0" **Bukovec PR [2c]**< 450XK04227."4" .430XK04228."3" *x-g"UY+0" **Lgfnqx** "f n"RT"]9< 80/4:0XKK04227."4" *OV+0" **Mq gpqx**];< 3;0XK04228."3" *UY+0" **Mníšek [14]**< 4;0X04227."3" *UY+0" **Poustecká obora [19]**< 440XK04228."3" *UY+0" **Tc-gnkp**-v "Lk|gtm{"**PRT**"}21< 380XK0/70XKK04227."5" .;" 70/4:0XKK04227."3" *x-g"OV+=380XK0/70XKK04228."4" * [RV+=450XK04227."3;" *UY+0" **Tglfleg**]45< 380XK0/80XKK04227."3" *UY+0

*Stilobezzia gracilis**Jcnkfc."3:55+

Rcngctmvkem "ftwj|p^ao |"Gxtqr{"x" T"fqwf"|lk-v p"lgp"pc"Oqtex 0" **B!**

Bílý Potok [1a]< 4;0XKK0/3;0XKK04227."3" *OV+0" **Jqtpf** gtp^aUvwfpleg]6< 450XK04228."4" *UY+0" **Meandry Uo f²RT**]34< 530X0/440XK04227."3" .4;0XKK0/3;0XKK04227."3" *x-g"OV+0" **Tglfleg**]45< 380XK0/80XKK04227."5" .;" 39" .80/4:0XKK04227."33" .82" .4:0XKK0/380XKK04227."47" .90/440K04227."3" *x-g"GV+0

*Stilobezzia ochracea**Ykppgtv|."3:74+

B!

Rcngctmvkem "ftwj."x" T"fqwf"|p^ao "lgp"|"Oqtex{0

Jqtpf gtp^aUvwfpleg]6< 450XK04228."3" *UY+0" **Ogcpft**{Uo f²RT"}34< 450XK04228."3" .3" .440XK0/70XKK04227."3" .3" *x-g"OV+0

*Stilobezzia txcxktqwtku**Ykppgtv|.3:74+

Rcngctmvkem "ftwj|p^ao |g^uv gfp^clkflp^lGxtqr{. |^arcfp^lUkdk g.x" T^d flp 0

Bílý Potok [1a]< 430XK04228."3" .4" *UY+0^lMinkovice [13]< 440XK04228."3" *UY+0^lrk^am]47_<420XK04227."3" *UY+0

\jqfpgqgp^lx ungf^m

R gfnqflgp^art^aeg^utpwlg^x ungf^m{fgygtokpceg^lftwj " gngfk^lEgctvqrqi qpkfcg^x{dtepej |g^x|qtm "j o { |w^ud^ltcp ej "R0^lXqpk mqw^cL0^lRtgkungto^xLk|gtum ej "jqt^aej^cpc^{Ht} fncpvumw^xngvygej^l4225642290^lOcvgtk^an^rqej^a|^l|^l49^lnqmcnk^v"c^rqfng^lfcv^ud t "c^l|r uqd "qfej{v "lg^ltq|f ngp^fq^l;3^x|qtm 0^lWt gpq^d{nq⁹:ftwj *Lk|gtum²jqt{"o⁹5^lHt fncpvumq^o53+^lIglkejfl^llogpp^rrgjngf^lrq v{"mwu "lgfpqmkx^lej^rqjncx^l,"fcvc^ud t "c^l|r uqd{"qfej{vw^lluq^wxg^x-g^lwxgfgp²o^ug^lpc^ow0^l\^vqjvq^lr^qvw^lftwj^ld{nq⁹7^lwt gpq^fq^lAtqxp^lftwj^wc^xg^vgej^rl^lrcfgej^ld{nc^oqflp^afgvgtokpceg^llgp^fq^lAtqxp^lumwrkp^lftwj **Culicoides*^lchh0^l*pallidicornis*+^lnebo fq^lAtqxp^ltqfw^{*Alluaudomyia}ur0^c*Atrichopogon*ur.+0^l|rteq^xa^pq^d{nq^rgu":52^lIgfkpe^l.xgnek^xtc|p^rgxcflqxcn{uc^okeg^{*x}eg^lpgfl⁹22^lIgfkpe^l+0^l\^ogvq^fqfej{vw^lug^lpgln²rg^lqux^f/kn^l{^oCncnkug^jrcuik^cu^oma^pl^lQuop^aev^l|g^l|lk-v^lp^lej^lftwj^llg^ljqnctmvkem^lej^l,"tq|f^lgp^lej^lug^lo²pc^lpc^lugxgtw^cx^lj^lq^ltm^lej^lq^lndncuvgej^lGwtcukg^cC^oogtkm^l|^gFxc^l|g^l|cej^legp^lej^lftwj^lug^lx{um{vw^ll^lk^lx^lpgqvtqrkem²q^dncuik^{*Atrichopogon oedemerarum},*Forcipomyia glauca*+0^l\^dxcl^le^lej^l7:ftwj^lIg^lrcngctmvkem^lej^lu^vflk-v^o|tq|f^lgp^lx^lGxtqr^oP^lmvgt²|^lpkej^ld{n^l|lk-v^lp^l{vcm²x^lCukk.

\^hcw^lpkukem²jq^ljngfkumc^lIg^x|pc^op^lang^l|fgx^lvk^lftwj^lpqx^lej^lrtq^lhcw^lpw^l gum²tgrwd/nkm{<*Atrichopogon fuscus*, C0^lt^lxgqmwu.*Brachypogon incompletus*.*Dasyhelea lutea*.*Forcipomyia lugubris*.*F. sphagnophila*.*Neurohelea luteitarsis*.*Palpomyia globulifera*^cP.*spinipes*.|^lpkej^lfl^lfxc^llkfl^ld{n^l{^rwdnkmqx^ap^l{*V>vjqx^a"(Mpql^l4228.422:^l+0^lQu^ofcn^lfej^lftwj^lIg^lpqx^lej^lrtq^lhcw^lpw^lgej^l<*Dasyhelea palliventris*.*D. septuosa*.*Forcipomyia nigrans*.*F. murina*.*Palpomyia melacheira*.*P. serripes*.*Stilobezzia gracilis*^cS.*ochracea*0^lP^lang^l|ftwj^w*Neurohelea luteitarsis*^lIg^lxgnok^lf^lngflkv^l|^ljngfkumc^ldkq^oqpkvqtkpi^wc^lqej^ltcp^l|^rl^lq^lqf^l="lfg^lq^lr^av^lp^lang^l|^vqjvq^lxgnok^lx^lap²jq^lftwj^wx^lGxtqr^l"c^lIg^lq^lx^lum{v^lux^lf^lq^l|^lcej^lqxcnquvk^l|mqw^ocp²jq^lÀ|g^ol^ll^lFtwj^l*Ceratopogon lacteipennis*^lIg^l|c^lclgp^lx^lgtxgp²o^ug^lpc^ow^lqj^ltqflgp^lej^lftwj^l"T^lx^lmcvqi^lqtkk^l|tcpkvgnp^lej^l*XW+0^lFcn^ll^lp^lang^l|{*fxc^lfquwf^lpg^lp^ao²ftwj^l{^lIglkejfl^lrqrku^lIg^lx^lr^lrtex^l+^lk^lx^l-g^lwxgfgp²l^lrtxqp^lang^l|{^vq^lvq^ljqfpgqgp^lIg^v^lr^lq^lfrqtwl^l0^lPc^lftwj²uvtcp^lcfc^ld^lflp^lej^lftwj^l**Culicoides obsoletus*.*Forcipomyia bipunctata*.*F. brevipennis*.*F. nigra*cvf0^ld{nc^l|c|pc^ogp^apc^lrqw^l|g^lqlgflk^lng^cx^lr^qo^ltp^locn²o^lr^qvw^lIgfkpe^l0^lPglr^lq^lgvp^ll^lo^lftwj^lg^od{n^l*Stilobezzia gracilis**344^lIgfkpe^l+^lp^lang^lfqx^ap^lftwj^lg^o*Atrichopogon lucorum**327^lIgfkpe^l+0^lM^l|cl^lfo^lcx^oo^lnqmcnk^va^ol^ljngfkumc^lhcw^l{^rcmq^oa^lte^lrcv^ll^lD^ll^lRq^lvqm^l]3^l.RT^lOgcpft^l{U^of²]34^l.PRT^lTc^l-gnkpk^v^lLk|gtm^l{]43^l-c^lTglfkeg^l]45^l0

Rqf mxq^ap^l0^lR gfnqflgp^auwf^lkg^ld{nc^l|rteq^xa^ppc^lu^lr^qf^lrtq^w0^lOcuct{mqx^l{w^lpkxgt^lkv^l{^xDtp^l.x^l|mwop^l|^ao^lt^lOUO^l22438446380

NKVGTCVWTC

DQTMGPV^c0^l4228<*World species of biting midges (Diptera, Ceratopogonidae)*.^lQp^lnkpg^lxgtukqp^lcv^lj^lvr<l^ly^ly^l0^llpj^lu^lwk^lwel^lg^lfwlegg^lHN^l[VTGGI^lEgctvqrqi^lqpkfcg^lEvcnq^li^lwg^l0^lr^lfh
D^l[UVTCM^lR0^lI^o ("YKTVJ^lY^oY<3;9:<*The North American species of Forcipomyia, subgenus Euprojoannisia (Diptera, Ceratopogonidae)*0^lWpkvg^fUvcygu^lFgrctv^ogp^lqh^lC^li^ltkewnw^lwtg^l.Vgej^lpkc^ln^lDwnngkp^l37;3."73^lr^lr^l0^lGFYCTFu^lH^lY^o3;48<Qp^lvj^lg^lDtkvkuj^ldkvpi^lok^lfgu^l*Fkrvgtc^l.Egctvqrqi^lqpkfcg^l+0^lTrans. Ent. Soc. Lond^l.96<596/64:0

UWO OCT [

Vjg"uwf{"ku"dcugf"qp"vjg"o cvgtkcn"qh"dkvki"o kfi gu"eqnngvgf"kp"vjg"Lk|gtum²"jqt{"Ovu"cpf" Ht fncpv"tgikqp"fwtkpi"4226642290"Vjg"o cvgtkcn"eqo gu"htqo"49"nqecnkvkgu"cpf"kv"ku"fkxkfgf" kpvq";3"uc o rngu"ceeqtfkpi"vq"vjg"eqnngvki"fcvg"cpf"o gvjqf"wugf0"Chvqigvjt"9:"urgekgu" qh"dkvki"o kfi gu"ygtg"kfgpvkŁgf"kp"vjg"o cvgtkcn"*Lk|gtum²"jqt{"Ovu"6"95"urgekgu."Ht fncpv" tgi kqp"6"53"urgekgu+0"htqo"vjg"|qqigqi tcrjkecn"rqkpv"qh"xkgy".Rcncgctevke"urgekgu"rtgxckngf" *7:"ur r0+."hqnnqygf"d{"J qnctevke"*3:"ur r0+"cpf" Pggvtqrkecn"urgekgu"*4"ur r0+0" Ocackug"vtcru" uggogf"vq"dg"vjg"o quv"ghhgevkxg"eqnngvki"o gvjqf."hqnnqygf"d{"uyggrkpi0"

Pkpg"urgekgu"ctg"tgrqtvf"htqo"vjg"Elgej" Tgrwdnke" hqt"vjg" Łtuv"vkog<"Atrichopogon fuscus, C0" Łcxgqmwu."Brachypogon incompletus. Dasyhelea lutea. Forcipomyia lugubris." F. sphagnophila. Neurohelea luteitarsis. Palpomyia globulifera"cpf"P. spinipes."vyq"qh"y jkej" jcf"dggp"cntgcf{"rwdnkujgf"gnugy jgtg"*V»vjqx" ("Mpq|"4228."422: +0"Gki jv"qvjgt"urgekgu"ctg" tgrqtvf"htqo"vjg"jkvqtkecn"vgttkvt{"qh"Dqjgokc" hqt"vjg"Łtuv"vkog<"Dasyhelea pallidiventris." D. septuosa."Forcipomyia nigrans."F. murina."Palpomyia melacheira."P. serripes."Stilobezzia gracilis"cpf"S. ochracea0" Hkpfkpi"qh"Neurohelea luteitarsis,"tgrtgugpvki"vjg"Łhvj"tgeqtf"qh" vjg"urgekgu"kp"Gwtqrg."ku"xgt{"kpvgtguvki0"Vjg"qvjgt"kpvtguvki"Łpfkpiu"*fguetkrvkqp"qh"vyq" pgy"urgekgu+"cpf"hcevu"o gpvkqpgf"cdqyg"uwi iguv"wpkswpgguu"cpf"ko rqtvcpeg"qh"vjg"uwf{" ctgc0"Qp"vjg"qvjgt"jcpf."o cp{"qh"vjg"eqo o qp"urgekgu"*Culicoides obsoletus."Forcipomyia bipunctata."F. brevipennis."F. nigra"ge0+ ygtg"tgeqtfgf"qp{"kp"cnqy"pwodgt"qh"urkeko gpu0" Vjg"o quv"cdwpfcpv"urgekgu"ycu"Stilobezzia gracilis"*344"kp f0+"hqnnqygf"d{"Atrichopogon lucorum"*327"kp f0+0"Eqpegtkpi"vjg"dkvki"o kfi g"hcwpc."Dfn"Rqvm"]3_."Ogc pft{"Uo f²"PT"]34_."Tc-gnkpv-Lk|gtm{"PPT"]43_ "cpf" Tglfkeg"]45_ "ctg"vjg"o quv"ko rqtvcpv"ukvgu0