

Výkalmnicovití (Diptera: Scathophagidae) Jizerských hor a Frýdlantska

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

Htcpvk-gmTMKHPGT

XTMflj^aej"3533."E\"6"364"22"Rtcjc"6"

Abstract. Cmvq igvjgt"42"i gpgtc"cpf"68"urgekqu"qh"Uecvjq rjc ikfcg"ygtg"tgeqtfgf"cv"64"nqecnkvgu"kp"vjg"Lk|gtum² jqt{"Ovu"cpf"Ht fncpv"tgikqp"*pqtvjgtp"Dqjg okc+"kp"4224642290"Wukpi"hqwt"o gvjqfu"*uyggrkpi."Ocnckug"vtrcu."rtqvqgp"vtrcu"cpf{"gmmqy"rcp"vtrcu."5056;"urgek o gpu"qh"vjg"hc okn{"Uecvjq rjc ikfcg"ygtg"ecrwtg"cpf"vyq"pgy"urgekqu"qh"vjg"hc okn{"Scathophaga jizerensis"TMkhpgt."4226"cpf"Norrellisoma vonickai"TMkhpgt."422:"ygtg"fguetkdgf0"Ukz"qh"vjg"urgekqu"tgeqtfgf"ctg"nkuvgf"co qpi"vjg"gpfcpi gtf"qt"xwnpctdng"vczc"kp"vjg"E|gej"Trgrwdnkell"CV"rtgugpv."cmvq igvjgt"99"urgekqu"ctg"mpqyp"v"q"qewt"kp"vjg"E|gej"Trgrwdnkell

Key words: Uecvjq rjc ikfcg."Fkrvgtc."E|gej"Trgrwdnkell.pqtvjgtp"Dqjg okc.Lk|gtum² jqt{"Ovu.Ht fncpv"tgikqp."hcwpkvkueu."pgy"tgeqtfu."vj tgcvgpgf"urgekqu

—XQF

Fq"uqw cup²"fqd{"d{ng"x" gum²"tgrwdnkell|lk-v pq"99"ftwj " gngfk"Uecvjq rjc ikfcg."v10"57" ' x-gej"fqwf"wx^af p ej"ftwj "x"rngctmvkem²"qdncuvk"TMkhpgt"422:d+0"X"qdncuvk"Lk|gtum ej" jqt"c"Ht fncpvumc"pgd{"n"fqwf"mq o rnzp"p|x |mw o"v²vq" gngfk"wumwvg p p0"X"ftwj²"rqnqxp " okpwn²jq"uvqngv{"d{"cwwqtg o"rtqxf"gp"qtkgpc p"rt |mw o"pc"p mqnkm"nqmcnk^aej"TMkhpgt"3;89." 3;8;+c"x"rt d jw"p^aungfwlfe"ej"ngv"d{"f"gvgt okpqa"p{"rqw|g"lfgfpvnx²"gzgo ri^a g"udftcp² t |p ok"cwqt{"v{vq"p^ang|{"d{"n{"c|jtpwv{"fq"fcn-f"rt^aeg"TMkhpgt"4225+0"D jgo"rt |mw o"v x"ngvgej"422464229."lgjqf"x ungf m{"luqw"wxgfgp{"x"v²vq"rt^aek.d{"n{"cwqtg o"rqru^ap{"fxc" ftwj j<"Scathophaga jizerensis"TMkhpgt."4226"c"Norrellisoma vonickai"TMkhpgt."422:"x gvp "rqrkuw" uc oeg"Hexamitocera martineki"TMkhpgt."42250"X"uqw cup²"fqd "lg"|p^a o q"|qdncuvk"Lk|gtum ej" jqt"c"Ht fncpvumc"68"ftwj " gngfk"Uecvjq rjc ikfcg."v10"7;.: " 'x-gej"ftwj " |lk-v p ej"pc" A|g o fl" gum²"tgrwdnkell0

Fqur nek"x mcnpkeqxkv ej"*xgnkmquv"7637"o o+"luqw"rtgf^avq k.lgp|egnc"x lkog p "pgmvctqh^a/ iqx²0"X{um{vwl"ug"|pc p "umt{v "xg"xgigvcek"pc|cuflp p ej"cxnjm ej"dkqvqrgej"t |p ej"v{r " x"pflkpa"ej"jqt^aej"*xnm²"nqwm{.u o fl-gp²"k"lgjnk pcv²"hgu{+.pc"o qm cfgej"t |p ej"v{r "x gvp " tc-gnkpk-."og|k"rqd gflp"xgigvcek"rqvqm .t{dpflm "k" gm0"Nctx{"ug"x{x"lgl"l"txp fl"pc"xnm ej" uvcpxk-v"ej."luqw"ftcx².mqrtqha"ip"l"rtcx f r qf qdp "k"ucrtqha"ip".flkl"l"ug"uvqlcv ej"xqf^aej" k"u"p"l|m o"qducjgo"m{um"mw"*tqf"Spaziphora"+pgdq"l"x"vgmqwe"l"xqf"*tqf"Acanthocnema+0" cfc" ftwj " okpwlg"x"nkuvgej"l"uvqpe"ej"r gfgx-fl o"lfgfpqf nqflp ej."| flmc"fxqwf nqflp ej"tquvnp0" Egn "x xqlqx "e{mnwu"lg"|p^a o"rqw|g"v"xgn ok"q og|gp²jq"rq vw"ftwj 0"|"rq|pcvm "q"ug|>p/ p"l" f{pc okg"x{rn x^a."flg"ug"lfgp^a"r gfgx-fl o"q"ftwj{"o qppqxqvkpp"u"x um{vg o"r gfgx-fl o" x"fdwpw"cfll" gtxpw0"Q og|gp "rq gv"dkxqvkpp"ej"ftwj "*tqf{"Scathophaga, Coniosternum"+ ug"x{um{vwlg"x"fdwpw"cfll" gtxpw^ac"x"|^a fl"cfll" flpw."x"r frcf "r fl|pkx ej"rqf o flpgm"x"nkuvqrcfw"

k"rq ^vmg o"rtqkpeg0"X"pcf o q um^2"x -eg"r kdnkfp "qf"922"o"p0o"0"lg"o czk o w o"ngw"fqur ne " rquwpwvq r kdnkfp "q"42"cfll"52"fpf."x" | ^xkunquvk"pc"vgrnqvpej"r qf o fpm^2"ej0

Uqw cup^2|pcnqvqk"tq|f gpfflgfpqvnkx ejftwj "luqw|^xkun^2"pc"hcwplukvem ej"rt |mwogej" lgfpqvnkx ej"tgikqp "pglpg"x"Gxtqr ."cng"l"x"lkp ej" ^auvej"rcngctmwkem^2"qdcuvkl"X"Gxtqr " lg"xgn o k" o ^nq"rtq |mqw o ^p"Dcnn^2"pum "c"Cr gpkpum "rqnqvvtqx=" |R {tgpplum^2"jq"rqnqvvtqxc" wx^2" f" Ectngu/Vqnt^2"4228+"r qw |g"33"ftwj "v^2"vq" gng flk0"Dnkfl"r "funw-pquv"ftwj "m"lgfpqvnkx o " tg ikqp o "lg"xgn o k"qdvfflp^2"uvcpxkv" c"rqmw f"lg"x"fcn" o "vgzv w"wxgfggc."lg"pwpvq"lk"dt^2"v"rqw |g" lmq"qtkgpvc p0

OGVQFKMC"C"OCVGTKfN"

Rqwfllv^2"ogvqf {"ud tw"wxgfgp^2"|mtcvm {"luqw"rqwflkv {"x"r g jngfw"ftwj <^OV^2"Oencukg"vtercu"Oencukgjq"rcuwk+." RV - rtqgkpl"vtercu"o"ogcv"vtercu"rtqgkppq^2."o cuqx^2"rcuwk+." [RV"o" gmnqy"rcp"vtercu"flnwv^2" okum {+."U Y"o"uyygrkpi" ^u o m^2"p"fxgi gvcge"gpvq o qnq ikemqwu"fl"0"Rqmwf"pgpf"wxgfggp"lkpem."rnc"l"R"Rtgekungt" ("R"Xqpk mc"hi0"Rqftqdp "v"q" o" ogvqf {"rqrkuwlg"Xqpk mc"422: +0"Xg-mgt " o cvgtk^n" fgvgt o kpxxcn"cwvqt."x"lgjqfl"udfteg"lg"wnqfpgc"l"x v-kpc"fqmcc/ fqx^2"jq" o cvgtk^nw"ud"ftmc"dwfg"x"dwfqwepw"uqw ^u"fl"ud"ftm {"Gpvq o qnq ikem^2"jq"qff ngpf" P^2"tqfp"jq" o w |gc"x"Rtc |g0" Ogp-f" ^uv" o cvgtk^nw"lg"wnqfpgc"Xg"ud"fteg"Ugxgtq gum^2"jq" o w |gc"x"Nkdgtekl"Rqftqdp l-f"x { o g |gp" c"ejctcmgtkuvkmc" ungfqxcp^2"jq"l" |g o f"xl"Xqpk mc" ("Xl- ^m^2"422: +0

R g jngf"nqmcnk v"

-fclg"m"nqmcnk v" o "luqw"wxgfgp {"x"p^2"ungfwl"fe"o"r q cf"l" funq" c"p^2" |gx"nqmcnk v" *qdge." ^uv"qdeg."ejt^2"p p^2"l" |g o f." xtejqn"crqf0+. hcwplukvem "o crqx" vxtge"m"Rtwpgt" ("O"fmc 3; ;8+."pcf o q um^2"x -mc."dkvqr."fcwv o" *kpvgtxcn+ud tw." |mtcvm c" o gvqf {"ud tw" *x" | ^xqtege" c" r"rcfp" |mtcvm c" l" o ^2pc"udncv tcvgng0" P mvgt^2"nqmcnk {"luqw"tq |f ngpf {"pc"x"fe"gdq/ vqr ."mvgt^2"luqw"q |pc gp {"r"fu o gp {"R"qwfllv^2"|mtcvm {<H^2"o" H"m"l"hpkt"ni v0."LR"o"l"Rtgekungt"ni v0."PRT"o"p^2"tqfp"r"ftqfp" tg |gtxceg."RT"o"r"ftqfp"tg |gtxceg."RR"o"r"ftqfp"rc o ^vmecl

[1] Bily Potok."7379.<[1a]"o qm cf" c"xnjm^2"nqwm {"pcf"mqwrcnk-v o "lklp "qf"qdeg."632"o."40Z04224."440X04225"U Y +." LR=" [1b]" o qm cf {"nqwm {"c"rcuwkpl {"rqf^2"n" D"n^2"jq"rqvqmc."642"o."440X04225"U Y +."LR=" [1c]"t {dpf" m {"ux0"qf"flgn0" uvepkge."672"o" *rtc o gpk-v ." o qm cf."nqwmc+."50X0/450KZ04227"O V." [RV+0] [2] Bukovec PR."737: <[2a]"ngup"rtc o g/ pk-v "pc"lxl"uxc"jw."; 42"o."4: 0X0."530X0."490XK04225"U Y +."LR="380/4: 0X04225" * [RV+0] [2b]"Rtcnqwmc."; 22"o" *jqtum^2" nqwmc."rtc o gpk-v +."90/; 0XK04226."440/460XK04227."3; 0/440XK04228."3; 0XK04229"U Y +."H^2"= 530X04225."3: 0XK04227." 430XK04228"U Y +."LR=" [2c]"W"rqf"ppqx"nqwmc."; ; 2"o" *xnm^2"nqwmc." o qm cf+."90XK0/4227"U Y +."LR" H^2"= [2d]"qmtcl"nguc" c" xgi gvcge"pcf" W"rqf"ppqx"nqwmq."; 22"o."90XK0/; 0XK04226"U Y +."H^2"= 3: 0/420XK04229" * [RV+."H^2"= [2e]"qfw o gn^2" uot kpc"u"p^2"ngv o "lg ^d w"rvc |j"q"Xg"Xtejqnqx^2"rctvkk."3"222"o." : 0/320XK04225"U Y +."H^2"= [3] gtp^2"jtc"RT."7379." 3"272"o."X"pq p"nqwmc" *tc-gnkpk-v +."80X0/4: 0Z04226"O V." [RV+0] [4] gtp^2"lg |ftmc"RT."7379.; 42"o."Vgv gx"fl"nqw/ mc" *tc-gnkpk-v +."340XK04225"U Y +."LR" [5] gtpqwu {"X"Rqk."7278."472"o."uqwvwx"t {dpf" m "x" ejqfp "qf"qucf {" * o qm cf" w"r"fvqmw"fq"t {3p"m c+."460X0/; 0Z04229"O V+0] [6] Hqlvgem "o qm cf"RR."7378."592"o."390XK04225"U Y +." LR" [7] Hqlvmc" *qdge"Op"l-gm+."7378."652"o."rqvqm" Hqlvmc" * o qm cf+.; 0XK04226"U Y +."LR" [8] Harta" *qdge" Ht fncp+." 7278."482"o."Afqmf" gm {"U o f^2"d gj {"c"r"fvqm {+."340X04228"U Y +."LR" [9] Jqtp" gtp^2"Uvfwfpleg" *qdge" Pqx^2"Xgu" pcf" Pkuq+."7479."92"o."t {dpf"m" M"fu^2"m"nqwmc." o qm cf+."390XK04225"U Y +."LR" [11] Horni Pertolice."7278.< [11a] Jtepk p"t {dpf"m."522"o" * o qm cf+."30XK04227"U Y +."LR" [11b]"m^2"n x"t {dpf"m."522"o" * o qm cf+."30XK04227"U Y +."LR" [12] Horni Polubny" *qdge" Mq gpqx+."747: ."922"o." o qm cf {"c"nqwm {"lxl"qf"qucf {"."520X04227."3; 0XK04228"U Y +."LR" [13] Lgfngx "f" nRT."7479."892"o."d gj"rqvqmc"lgfngx"nqwu+."50X0/440KZ04227"O V." [RV+; 340XK04227"U Y +."LR" [14] Lgnpp"vut^2" *xtejqn+."737: ."72/3"23: "o" *u o tmqx^2"onc |kp |c+."3; 0XK04225"U Y +."H^2"= [15] Lkpf kexjxum "o qm cf" PP."7479."822"o."390XK04225"U Y +."LR" [16] Jizerka" *qdge" Mq gpqx+."737: ."72"o."nqwm {"x"qdek."xgi gvcge"rqf^2"n" f" m {"l"l"gtm {"x"njm^2"o"fu"xc" gvp"uvfwlgn"u"r" gxc"jqw"rtqqu "Carex"urr0." : 0/; 0XK04225."90/; 0XK04226."450XK04227." 3; 0/440XK04228."3: 0/430XK04229"U Y +."H^2"= 530X0/30XK0." : 0XK0."520XK04225"U Y +."LR" [17] Mq gpqx."747: ."8: 2"o." rqvqm c" o qm kp {"r"qf"flgn0"uvcpke"l."390XK0."490XK04226."3; 0XK04228"U Y +."LR" [18] M flqax "xtejqn"RT."7278."542"o" *ngv." o qm cf+."530X0."50XK04226"U Y +."LR" [19] Nidgter/Xguge."7378."582"o."Afqmf"Xguge"m^2"jq"rqvqmc" * o qm cf+."90XK00." 380XK04226"U Y +."LR" [20] Ludvikov pod Smrkem" *qdge" Pqx^2"O uvq"rqf"U o tmg o +."7279."652"o."rcuwkpl {"^2"rcfp " qf"qdeg."420XK04228"U Y +."LR" [21] Ocn^2"Uvtcpe"RT."7479."922/942"o" *nqwm {"." o qm cf {"t {dpf" gm."rqvqm+." : 0X0/390

XK04224* [RV+70X0/380Z04225*OV. [RV+380X0.480XK04225*UY+.LR=40XK04226*UY+.Hm=0XK04226*UY+.LR][22] **Ogcpft**{Uo f2^{RT}.7278<[22a]t{dpf gm'uxd'qf't{dpfmw'Fwd'm*o qm cf.'rpf o^a gp^aqn-kpc+.60X0/450KZ04227*OV. [RV+0][22b]Hknrqxmc*qdge'Xk- qx^a.d gj' gm{Uo f2'.460X0/0Z04229*OV+0}[23] **Minkovice***qdge'Xk- qx^a+.7278.472'o*rqvqm.o qm cf+.440XK04228*UY+.LR][24] **Mnišek**.7378.5:2'o.nqwm{r'qf'2'n'f'gn0'v'c'k.460X04225*UY+.LR}[25] **Pqx^ahqwmc**RT.7379.992'o.d gj'Dncvp²j'q'rqvqmc*tc-gnkp^au'ot kpc+.520X0/30XK04224*OV+0}[26] **Qnf kej qxum²ugfnq**.7378.722'o.Xl'pk p^aegwv^c*dw kpc+.4225* [RV+.LR][27] **Qnf kej qx^ax^aJ^aIfej**.7378.622'o. auv'Pc'Rkn^aej^anqwm{+.460X04225.490X0.90XK04226.460X04227*UY+.LR}[28] **Pasek nad Jizerou**.747.:.792'o. Ocmqum r'qvqm^aqmtcl'nguc+.0KZ04226*UY+.LR][29] **Poledník***xtejqn.PRT'Lk|gtumqjqtum²dw kp{+.7378.:72'o*dw kpc+.80X0/4:0Z04226*OV. [RV+0][30] **Tc-gnkp-v** 'Lk|gtm{PRT.737.<[30a]Uch'ftqx' r'qvqm.:72'o*dw gj'rqvqmc.o qm kp{.nqwmc+.4225* [RV+.LR=90/0XK04225.:0XK04226.420XK04227.3:0XK04228.3:0XK04229*UY+.Hm=[30b]Mnwigjq'ngwmc.:82'o*tc-gnkp-v+.70X0/440KZ04227*OV. [RV+0XK04225.90XK04226.450XK04227.420XK04228.3:0XK04229*UY+.Hm=;0XK04225*UY+.LR][31] **Tc-gnkp-v** 'Lk|gt{PRT.7379/737.<[31a]X'Oq^angej^au'ot^auv+.7379.:92'o*tc-gnkp^au'ot kpc+.4224*OV. [RV+0XK04225*UY+.LR=;0XK04226*UY+.Hm=[31b]X'gmm^a'Lk|gtum^anqwm^a*1x0' auv+.737.:.52'o*tc-gnkp-v.'tc-gnkp^au'ot kpc.'d gj' gm{Lk|gt{+.480X0/380Z04225*OV. [RV+0][32] **Tgl fkeg***qdge'Mq gpqx+.747.:.872'o.r'qvqm'lg-mtcdge^a*o qm cf+.50X0/440KZ04227* [RV.RV+50XK04226.470X0.50XK04227*UY+.LR][33] **Rudolfov***qdge'Nkdgtge+.7478.852'o.r'tc o gp'w'umpkeg.440X04224*UY+.LR][34] **T{d^angw m{RT**.737.:.72'o*tc-gnkp-v+.480X0/380Z04225*OV. [RV+30XK04226*UY+.Hm][35] **Umgpce** keg*qdge'X{uqm²pc'f'Lk|gtqw+.747.:.772/782'o*rtc o gpk-v.'r'qvqm+.0KZ04226*UY+.LR][36] **Smrk** *o cukx' jqt{+.7379<[36a]u'ot kpc'pc'l|0'uxc'w.3'322'o.330X0/50KZ04228*OV. [RV+36b]Nkdxgtfum' o quv.922'o.'d gj'\vtcegp²j'q'rqvqmc^angup^ar'tc o gpk-v+.330X0/450KZ04228* [RV+0][37] **Uvftlqx** 'xtej^aPRT'Lk|gtumqjqtum²dw kp{+.7378.842'o*dw kpc+.4225* [RV+0][38] **Wqne x't{dpf^am**lkfip'qf'Tcургрсх{+.7378.572'o.'J'qmw^ar'qvqm^a*o qm cf.qn-kpc+.520X0/4:0XK04224*OV. [RV+0][39] **W^ark^am***xtejqn.PRT'Lk|gtumqjqtum²dw kp{+.7378.822'o*dw kpc.r'qvqm+.4225/4229* [RV.RV+0][40] **Vkej^a me**RR.7479.972'o*xnjm²nqwm{.tc-gnkp-v+.80X0/4:0Z04226*OV. [RV+0XK04226*UY+.Hm][41] **X^aenxfmqx** Uvwf^apme*qdge'Mq gpqx+.747.:.72'o*o qm cf.'xnjm^anqwmc+.3:0XK04228*UY+.LR][42] \ncv^a **Olešnice**.747.<[42a] auv'P^axctqxum^a.822'o*šnw p^ar'tc o gpk-v+.390XK04224.520XK04226*UY+.LR=[42b]r'tcxqwtvpp' r'fvqm'f'tc'j'q'rqvqmc^a*o qm cf.'752'o.;0KZ04226*UY+.LR=[42c]f'tc'f' r'qvqm'r'g^aAvu^ao'f'q'ncvp^afmw.682'o*o qm kp{+.50XK0.;0KZ04226*UY+.LR

X UNGFM [C'FKUMWUG

R gjngf|lk-v p ej'ftwj

W'mcflf²j'q'ftwj'c'ngmckv{lg'wxgfgp'egnmqx'rq'gv'uc'oe'c'uc'oke'c'ogv'qfc'ud'tw0'Mqp/mt²vp||fcvc'p^ang|'luqw'wxgfgp'c'rqw|g'w'x|pc'op'l-|ej'ftwj'0'Rqwf'v'k'v'|mtcvm{<'U'0'mcv'gi'q/tkg'|'gtxgp²j'q'ug|pc'ow'qj'tqflgp'ej'ftwj'dg|qdtcvn'ej'T^a*TM'khp'gt'4227+<'CR'ó'mtkv'kem{'qj'tqflgp.'EN'ó'qj'tqflgp.'VU'ó'|tc'pkv'gnp'ftwj'0'P'q'ogp'mncv'w'tc'c'u|u'vg'ocv'kem²'c|gp||ftwj'lg'r'qfng^aTM'khp'gtc*4225+0

Cordilura atrata \gwgvtugvf.3:68

Nkvtg^atp^aÅfclg<Dgf'kej'qx.Mctnqx^a*TM'khp'gt'3;8;+0'
J'qnc'tmv'kem'ftwj.x'Gxtqr'tq|-f|gp'r'gfgx-|o'qf'pcf'of'q'um²x -m{eec'922'o'pc'xnjm'ej'dk'qv'qr'ge'j'u'rqt'quv{'Carex'ur'0.x'p'f'f'k'p^aej'x'gn'ok'x|'ep'*Ng'f'p'keg'pc'lkf'p^aO'qt'cx'c'q'mq^a||R'tc|+.pc'Dcnm^apum²o'r'qn'q'quv'tqx'f'quw'f'pg|lk-v'p0'
Bílý Potok [1e]<3^a* [RV+0]Bukovec [2 b,c]:. :. *UY+0]J'qtp^aNw'cp{[32.<3^a*UY+0]Jizerka [16]<4^a.3^a* [RV+0]Oca^aUv'tcpc'PR [1R]<4^a.32^a* [RV+3^a*UY+0]Ogcpft{Uo f2^{RT}[22a,b]<7^a.3^a* [RV+0]Tgl'f'keg [32]<4^a* [RV+0]T{d^angw m{RT [34]<55^a.37^a* [RV+3^a.4^a*UY+0]Vkej^a me'PP [40]<79^a.36^a*OV+0

Cordilura ciliata Ogki'gp.3:48

Rcngctmv'kem'ftwj'tq|-f|gp'pc'xnjm'ej'dk'qv'qr'ge'j'u'rqt'quv{'Carex'ur'0.x'p'f'f'k'p^aej'k'pc'j'qt/um'ej'dk'qv'qr'ge'j.'o'f'uv{'j'qlp'0

gtp^a jqtCRT [3]<3" * [RV+0] **Bukovec PR [2b, c, d]**<4" .3" * [RV+=34" .3:" *UY+0] **Hqlvgem " o qm cf**RR [6]<4" *UY+0] **Jizerka [16]**<5" .6" *UY+0] **Nkdgtge/Xguge [19]**<3" *UY+0] **Ocn^aUvtcpc**RT [21]<3" *UY+0] **Tc-gnkp-k**-v "Lk|gtm{"PRT [30a, b]}<7" .6" *UY+=3" .3" * [RV+0] **Tc-gnkp-k**-v "Lk|gt{"PRT [31a, b]}<7" .5" * [RV+0] **T{d}nqw m{"RT [34]}<32" .57" * [RV+=3" *OV+0] **X^aencx^mqxc**Uvwf^apmc [41]<3" *UY+0**

Cordilura picipes"Ogki gp."3:48

Rcngctmvkem "ftwj"u" ¶fm o"x um{vg o0

Bukovec PR [2d]<3" *UY+0] **Horní Pertoltice [11a, b]**<4" *UY+0

Cordilura pubera"cwev0"pge"Nkppcgwu."397:

Nkvg^atp^a¶f^afcig<Mt^anqxc."Lcpqx^a*Mkhpgt"3;89+0

Mkqtqeg"tq|-¶ gp "rcngctmvkem "ftwj."rtcmkem{"pgljqlp l-¶ ftwj"tqfw"*Cordilura*"X{um{vwlg"ug"pc"x-gej"v{rgej"nwm"u"rqtquv{"*Carex*"urr0."qf"p^aflkp"fq"jqt0]Pc"Crpgpkpum² o"rqnqqvqtqx "fqwf"pg|lk-v p0

Bukovec PR [2b, c, d]<4:" .47" *UY+0] **gtpqwu{/X^aRqk [5]**<3" *UY+0] **Lkpf kejxum " o qm cf**RR [15]<3" *UY+0] **Jizerka [16]**<33" .7" *UY+0] **Ocn^aUvtcpc**RT [21]<5" .32" *UY+=53" .47" * [RV+0] **Mníšek [24]**<3" *UY+0] **Pqx^anqwm**RT [25]<3" *UY+0] **Qnf kejqx^aJ^aHej [27]**<3" *UY+0] **Tc-gnkp-k**-v "Lk|gtm{"NPR [30a, b]}<4" *UY+=3" .3" * [RV+=7" .8" *OV+0] **Tc-gnkp-k**-v "Lk|gt{"PRT [31a, b]}<39" .8" *UY+0] **Tglfkeg [32]**<4" .4" *UY+0] **T{d}nqw m{"RT [34]}<3" *UY+=33" .;" * [RV+0] **Umgpc keg [35]**<3" *UY+0] **q^ex^t{dp^m[38]**<4" .4" *OV+0] **Vkej^a ¶ mc**RR [40]<5" .33" *UY+=35" .3;" * [RV+=4" .5" *OV+0] **X^aencx^mqxc**Uvwf^apmc [41]<3" *UY+0] **ncv^aQng-pkeg [42a]**<4" .3" *UY+0**

Cordilura pudica"Ogki gp."3:48

Nkvg^atp^a¶f^afcig<Mctnqx^a*Mkhpgt"3;8;+0

Jqncctmvkem "ftwj"-ktqeg"tq|-¶ gp "pc"xnjm ej"nqwm^aej"pc"tc-gnkp-k-v"¶ej"dkvqrgej."xg"x{--¶ej"rqnj^aej"jqlp l-¶0

Bukovec PR [2b, c]<6" .92" *UY+0] **gtp^alg|tmc**RT [4]<3" *UY+0] **Jizerka [16]**<42" .35" *UY+0] **Ocn^aUvtcpc**RT [21]<9" *UY+=8" .7" * [RV+0] **Pqx^anqwm**RT [25]<4" *OV+0] **Tc-gnkp-k**-v "Lk|gtm{"NPR [30a, b]}<;" .8" *UY+0] **T{d}nqw m{"RT [34]}<4" .3" *UY+0] **q^ex^t{dp^m[38]**<3" .3" *OV+0] **Vkej^a ¶ mc**RR [40]<3" *UY+0**

Eqtfkw^wtc"twŁo^cpc"Ogki gp."3:48

Nkvg^atp^a¶f^afcig<Pc" kjcfng^a*Mkhpgt"4225+0

Jqncctmvkem "ftwj."x"ugxgtp^aGxtqr "x"p^aflkp^aej."xg"uv gfp^aGxtqr "x"pcf o q um ej"x -m^aej"pcf"922" o"pc"xnjm ej"dkvqrgej"x gvp "tc-gnkp-k-0]X^aegn²lkflp^aGxtqr "fqwf"pgd{n|c|pc/o gp^ap0

Bukovec PR [2b, c]<3" .4" *UY+0] **gtp^ajqtC**RT [3]<3" *OV+0] **Ocn^aUvtcpc**RT [21]<4" *UY+0] **Raše/nkpk-k**-v "Lk|gtm{"PRT [30a, b]}<39" .;" *UY+0] **Tc-gnkp-k**-v "Lk|gt{"PRT [31a]}<3" *UY+=3:" .3" *OV+0] **T{d}nqw m{"RT [34]}<4" *UY+=4" * [RV+0] **Vkej^a ¶ mc**RR [40]<7" *OV+0**

*Scoliaphleps ustulata** \ gwg^tuv^gf^v."3:5+:

Rcngctmvkem "ftwj" ¶feg"tq|-¶ gp "xg"uv gfp^ac"ugxgtp^aGxtqr "pc"xnjm ej"nqwm^aej"u"rqtquv{"quv ke^a*Carex*"urr0+x"p^aflkp^aej."rqfj ¶k"x"jqt^aej0

Bukovec PR [2b]<3" *UY+=3" * [RV+0] **Ocn^aUvtcpc**RT [21]<4" *OV+=9" .9" * [RV+0] **Pqx^anqwm**RT [25]<3" .4" * [RV+0] **Tc-gnkp-k**-v "Lk|gtm{"PRT [30b]}<3" .3" *OV+0] **Tc-gnkp-k**-v "Lk|gt{"PRT [31b]}<4" .6" * [RV+0] **T{d}nqw m{"RT [34]}<:" .;" * [RV+0] **q^ex^t{dp^m[38]**<3" * [RV+0] **Vkej^a ¶ mc**RR [62]<7" .34" * [RV+0**

Bukovec PR [2a, b]<3" .4" *UY+.4" * [RV+0]**Harta [8]**<3" *UY+0**Jizerka [16]**<3" *UY+0**Meandry Uo f²RT [22a]**<6" *UY+.3" .4" * [RV+0]**Tc-gnkp-k-v** |Lk|gtm{"**PRT [30a]**<3" * [RV+0]**Tglfleg [32]**<4" .3" * [RV+0]**Smrk [36b]**<5" .4" * [RV+0]**rk^am**]5;_<3" * [RV+0]

*Norellisoma striolatum**Ogki gp."3:48+

Rcngctmvkem "ftwj."xg'uv gfp"Gxtqr "ug"x{um{vwlg" f'feg'cfl'fq'pcf oq um²'x -m{"eec'3'622"o"}
X"ugxgtp"Gxtqr "fquwf'pg|lk-v p."pcng|gp"x"ugxgtp" "p 0

Ocn^aUvtcpc'RT [21]<:0XK04226."3" *UY+."LR)

*Norellisoma vonickai**TMkhpgt."422:

Rqw|g'rwdnkmqxcp "Àfcl<Dwmqxe'RT"]4f_ *TMkhpgt"422:c+0"

Ftwj'rqrucp "pc"|^amncf "x -g'wxgfgp²jq'p^ang|w."|cv|o"|lk-v p"rqw|g"x"Lk|gtum ej"jqt^aej0

*Norellia spinipes**Ogki gp."3:48+""

U<"**VU**

Xgnok" f'feg'ug"x{um{vwlg'rcngctmvkem "ftwj."h{vqh^ai p"nctxc'lg"x^a|^apc'pc'tquvnp{"*Narcissus*
ur r0"*eh0'Ekc o rqnkp"3;79+0"

\ncv^a"**Qng-pkeg [42b]**<:0KZ04226."4" .3" *UY+."LR)

*Magaphthalmoides unilineatus**\ gvwgtuvfv."3:5:+

Nkvtg^atp"Àfclg<Lk|gte"*jqtc+."Ocn^aLk|gtum^a"nqwmc"*TMkhpgt"3;89+0"

Jqncctmvkem . "f'feg'tq|-f| gp "ftwj."pc'Dcmm^apum²o"e"Crgpkpum²o"rqnqquvtqx "fquwf'pg|lk-v p0

Paseky nad Jizerou [28]<:0KZ04226."3" *UY+."LR)**Tc-gnkp-k-v** |Lk|gtm{"**PRT [30b]**<:0XKKK04225."3" *UY+."LR)
Tc-gnkp-k-v |Lk|gt{"**PRT**]53d_<:0XKKK04225."3" *UY+."LR)

*Cosmetopus dentimanus**\ gvwgtuvfv."3:5:+

Xgnok"x|^aep "ugxgtum "tgu r0'dqtgq o qpv^app"ftwj0"X" T"|p^ao"x'lgfkp²o"gzgo r n^a k"|gTMW o cx{"
*TMkhpgt"4225+."|lk-v p"xgTMx ectumw"*Dgengt"3::6+c"x"P o gemw"*Dcxqtumq."Uejcejv"4222+0"

P'f'lg'wxgfgp²'p^ang|{"luqw"rtxp|ok"x"ugxgtp" ^auvk" T"c'pplugxgtp l-f|ok'xg'uv gfp"Gxtqr 0

Tglfleg [32]<380XK0/70XKK04227."3" *RV+0)**Bukovec PR [2b]**<3:0XK04227."3" *UY+."LR)

*Chaetosa punctipes**Ogki gp."3:48+

Nkvtg^atp"Àfclg<Pc" kjcfng"*TMkhpgt"3;89+0"

Jqncctmvkem "ftwj."d flp "tq|-f| gp "x"qmqn"xqfp'ej"rnqej."pcr 0't{dp|m 0

Ogcpft{**Uo f²RT [22b]**<3" *OV+0

*Spaziphora hydromyzina**Hcm²p."3:3:+

Rcngctmvkem "ftwj."d flp ".cx-cm"pkmqnkx"jqlp "tq|-f| gp "x"qmqn"xqfp'ej"rnqej0"Nctx{"luqw"
ftcx²."xqfp".xgnok'fdq g'up^a-gl'f'ek"xqfw"u"p|m o"qducjgo"m{um'mw0

Bukovec PR [2b]<440XK04227."3" "pc'r gejqfw"og|k'rtcogpk-v o"e"oqm c fgo"*UY+."HTM)

*Cleigastrea apicalis**Ogki gp."3:48+

Rcngctmvkem "ftwj"x^a|cp "pc"rqtquv{"t^amquw0'Ftcx²"nctx{"rqfl'tcl"pcr 0'nctx{"o wej"tqfw"
*Lipara**Ej nqtqrkfcg+."mvg²t"x{vx^a gl'f'pc'tquvnp^aej"t^amquw"j^anm{0'Pglklfp lk|lk-v p"x"Kt^amw"

*TMkhpgt"422:d+0

M flq^x"xtej'RT [18]<3" *UY+0)**Ogcpft**{**Uo f²RT [22a]**<3" * [RV+0

*Gonarcticus abdominalis**\ gwgtuvgf v."3: 68+

Rcngctmvkem "ftwj|p^a o |g^uxg^tp^l|Gxtqr { 'x gvp "ugxgtp^lej "gxtqr^um ej " a^uv^l|T^wumc."xg^uv gf/ p^l|Gxtqr "d {n |lk-v p^rqw|g^upc^a|g o^l gum²"tgrwdnkm { "TMkhp^gt"4225+0

X^aenx^fm^qx^cU^wf^ap^mc [41]<3; 0XK04228."3" *UY+.LR0

Hexamitocera martineki"TMkhp^gt."4225

Nkvt^atp^l|Àfc|g<Uqw-*TMkhp^gt"4226+0

Ftwj"rqrupc " | "qm^qn^l|Rtcj { " *uc okeg+. |lk-v p^rpc^u Oqtcc " *Dctv^am ("Mwd^lm"4227+"c^upc^uUnq/ xgpumw-*TMkhp^gt"4228+0

Ogcpft { "U o f²RT [22b]<360X0/380XK04229."3" *OV+0^lSmrk [36b]<330X0/40XK04228."3" *OV+0^lVke^ja^u " mc^u PP [40]<80X0/40XK04226."5" .4" * [RV+0

*Megaphthalma pallida pallida**Hcm²p."3: 3; +

Rcngctmvkem "rqf ftwj. " f^leg^u|tq|-^l gp "xg^uv gf^up^l"c^uugxgtp^l" a^uvk^urcngctmvkem²"q^dncuvk."x^upgctm/ v^kem²"q^dncuvk"rqf ftwj "M. p. americana"Ocm^qej0

Lgfnqx "f r^lRT [13]<4" * [RV+0

*Amaurosoma armillatum**\ gwgtuvgf v."3: 68+

Ftwj"tq|-^l gp "xg^uv gf^up^l"c^uugxgtp^l|Gxtqr ."x xqlqx "e {mnwu"rqftqdp "rqru^ap^u*eh0^lTccvc/ mckppg ("Xcuctckppg"3; 94+0

Bukovec PR [2b]<5" *UY+0^lM fl^qx "xte^jRT [18]<5" .3" *UY+0^lMnišek [24]<3" .3" *UY+0^lPqx^a"nq^wmc^u PR [25]<3" *OV+0^lPoledník [29]<3" *OV+0^lVke^ja^u " mc^uRR [40]<3" *UY+0

Amaurosoma articulatum"Dgem^gt."3: ; 6

Ftwj"tq|-^l gp "xg^uv gf^up^l"c^uugxgtp^l|Gxtqr ." |lk-v p "k^ux"Oqpiqnumw0^lRtcxf rqf^uqdp "ug^u x {um {vwlg^uq^dg^ep ."cng^u "feg0

Pqx^a"nq^wmc^uRT [25]<5" * [RV+0^lTc-gn^kpk-v "Lk|gtm { "PRT [30b]<3" .3" * [RV+0^lTc-gn^kpk-v "Lk|gt { "PRT [31b]<3" * [RV+0

*Amaurosoma fasciatum**Ogkⁱgp."3: 48+

Rcngctmvkem "ftwj"tq|-^l gp "x^uegn²"Gxtqr "x gvp "lkflp^lej^u"q^dncuv^l."pcr 0^lxg^uTMrcp numw*Ectngu/ Vqnt^a"4228+0

Bílý Potok [1]<3" *UY+0^lBukovec PR [2b]<3" .5" *UY+0^lOcn^a"Uvtcpc^uRT [21]<3" *UY+0^lMnišek [24]<3" *UY+0^lq^ue x^ut {dp^lm [38]<3" *OV+0

Cocwtquoc"t^lcx^krgu^u*Hcm²p."3: 3; +

Nkvt^atp^l|Àfc|g<Dgf ke^jqx^u*TMkhp^gt"3; 89+0

Rcngctmvkem "ftwj"d fl^p "tq|-^l gp "c^u-mqf^lej^u"pc^udq^l|pmw*Phleum pratense+."-mqf { "pc^up o " d {n {wx^af p^l {"lkf^u"x"40^lrqn^qxkp "3; 0^luv^qngv^l|"qm^qn^l|Mtc^mqxc*Pqy^ukem²"3: 96+0^lX^u"lkflp^lej^u " a^uvge^j r^urcngctmvkem²"q^dncuvk^uf^uquw^upg|c|pc o gp^ap0

Harta [8]<3" *UY+0^lM fl^qx "xte^jRT [18]<6" *UY+0^lOcn^a"Uvtcpc^uRT [21]<3" .6" *UY+0^lOgcpft { "U o f² PR [22a]<3" *UY+0^lMnišek [24]<4" *UY+0^lPqx^a"nq^wmc^uRT [25]<4" * [RV+0^lTc-gn^kpk-v "Lk|gt { "PRT [31a]<4" * [RV+0^lSmrk [36b]<4" *OV+0^lncv^a"Qng-p^leg [42a]<3" *UY+0

Amaurosoma inerme"Dgem^gt."3: ; 6

Nkvt^atp^l|Àfc|g<Qnkxgvum^a"j^utc."Mtkuvk^upqx."Pqx^a"nq^wmc."Dgf ke^jqx."Mt^anq^xmc*TMkhp^gt"3; 89+0

Rcngctmvkem "ftwj"tq|-¶ gp "xg"uv gfp¶c"ugxgtp¶Gxtqr .|lk-v p "k"x"Oqpiqnumw0"Pc"xnjm ej" p¶flkpp ej"kJ"qtum ej"nqwmªej0

Mníšek [24]<3" *UY+0¶Vkejª¶ ¶ mc"RR [40]<9" .3" *OV+0

Amaurosoma minutum"Dgemgt."3: ; 6

Rcngctmvkem "ftwj"tq|-¶ gp "rtxcf rqfqdp "d flp "x"ugxgtp¶c"uv gfp¶Gxtqr 0

Jizerka [16]<3" *UY+0¶M flqX "xtej"RT [18]<8" .5" *UY+0¶Ocaª"Uvtcpc"RT [21]<3" *UY+0¶Mníšek [24]<6" .3:" *UY+0¶Qnf kejqx"x"Jª¶Ifej [27]<4" *UY+0¶Poledník [29]<4" *OV+0

Amaurosoma puberullum"Dgemgt."3: ; 6

Ftwj"pª o "rqw|g|g"uv gfp¶Gxtqr {"c"gxqrum2"ªuvk"Twumc"¶TMkhpgt"422:d+0

Tc-gnkp-v "Lk|gt{"PRT [31a]<70XK0/360XKKK04224."3" *OV+0

Amaurosoma tibiellum"* \ gwgtuvfv."3: 5: +

Nkvgtp¶¶fclg<Dgf kejqx."MtªnqXmc."Pqxªnqwmc."Lcpqx."J ted vkeg"¶TMkhpgt"3;89+0

Qdgp "tq|-¶ gp "rcngctmvkem "ftwj"pc"xnjm ej"jqtum ej"nqwmªej."x"p¶flkpa ej" x|ªep l-¶0" Pc"R{"tgpglum2 o" c"CrpXpkum2 o" rqnqqvtxq "fquwf"pg|c|pc o gpªp0

Bukovec PR [2b, c]<32" .:" *UY+0¶ gtpª"jqt c"RT [3]<3" *OV+0¶Jizerka [16]<42" .38" *UY+0¶ M flqX "xtej"RT [18]<38" .3:" *UY+0¶ Ocaª"Uvtcpc"RT [21]<4" *UY+0¶Mníšek [24]<5" *UY+0¶Pqxª" louka PR [25]<4" * [RV+0¶Tc-gnkp-v "Lk|gtm{"PRT [30b]<3" .8" *UY+."3" * [RV+."4" *OV+0¶Tc-gnkp-v " Jizery NPR [31a]<34" *OV+0¶Vkejªª ¶ mc"RR"j62.<3:" .:" *UY+0

Gonatherus planiceps"*Hcm2p."3: 3: +

Jqncctmvkem "ftwj."¶feg"tq|-¶ gp "rtxcf rqfqdp "x"egn2"rcngctmvkem2"qdncuvk."fquwf"lg"x-cm" xgn o k" oªnq"pªng| 0"Tkpi fcjª"3;73+"|gl"rqxcflw|g|c"ftwj"u"dtgq o qpªªpp"o"tq|-¶ gp¶o0

Qnf kejqx"x"Jª¶Ifej [27]<460X4225."3" *UY+."LR0

Scathophaga cineraria"*Ogki gp."3: 48+

Nkvgtp¶¶fclg<Dgf kejqx."Pc" kjc fng"¶TMkhpgt"3;89+0

Gxtqrum "ftwj."pc"jqtum ej"nqwmªej"x"x"ngu¶ej" cuvq"xgn ok"jqlp ."x"rqf j ¶c"p¶flkpa ej"xgn ok" x|ªep 0"lk-v p"xg"¶TMrcp numw"K"pc"Mcªªtum ej"quvtqXgej" c"quvtqX "Ocfgtc"¶TMkhpgt"422:d+0

LgfñqX "f n"RT [13]<3" *OV+0¶Ocaª"Uvtcpc"RT [21]<3" * [RV+0¶Tc-gnkp-v "Lk|gtm{"PRT [30b]<7" .9" " *UY+0¶Tc-gnkp-v "Lk|gt{"PRT [31b]<4" .4" * [RV+0¶T{d¶ñqwm{"RT [34]<3" * [RV+0

Scathophaga furcata"*Uc{"."3: 45+

Nkvgtp¶¶fclg<Dgf kejqx."Pc" kjc fng."Lk|gtm"nqwmc."MtkuvkªpXq."QnkXgvumª"jqt c"¶TMkhpgt"3;89."4225+0

Jqncctmvkem "ftwj."x"Gxtqr "pc"jqtum ej" c"rqf jqtum ej"dkqvqrg ej"t |p2j q"v{"rw"xgn ok"jqlp ." x"p¶flkpa ej"u"¶fm o."cng"rtxcXfgnp o"x um{vg o0

Bílý Potok [1]<5" *UY+."4" * [RV+0¶Bukovec PR [2a, b, c, d]<35" .9" *UY+."5" .4" * [RV+." 4" .4" *OV+0¶ gtpª"jqt c"RT [3]<4" * [RV+."." *OV+0¶ gtpqwu{/X"Rqk [5]<3" .3" *OV+0¶Harta"]:<9" .4" *UY+0¶Jqtp¶Nw cp{ [10]<7" .33" *UY+0¶Horní Pertoltice [11a]<4" *UY+0¶LgfñqX "f n"RT [13]<4" * [RV+."4" .3" *OV+0¶Jizerka [16]<48" .42" *UY+0¶Mq gpqX [17]<3" *UY+0¶M flqX "xtej" PR [18]<4" .5" *UY+0¶Nkdgtge/Xguge [19]<3" *UY+0¶Ocaª"Uvtcpc"RT [21]<7" .5" *UY+."6" .3" " * [RV+0¶Ogcpft{U o f2"RT [22a]<6" .6" *UY+."3" *OV+0¶Qnf kejqXum2"ugfñq [26]<3" *UY+0¶Qnf kejqX "x"Jª¶Ifej [27]<5" *UY+0¶Poledník [29]<7" * [RV+0¶Tc-gnkp-v "Lk|gtm{"PRT"j52c."d.<59" .44" *UY+." 8" .8" * [RV+."8" .33" *OV+0¶Tc-gnkp-v "Lk|gt{"PRT [31a, b]<:" .7" * [RV+."332" .:" 5" " *OV+0¶Tglfkeg [32]<3" .3" *UY+0¶T{d¶ñqwm{"RT [34]<4" .4" *UY+."6" .5" * [RV+."3" .7" "

*OV+0"Smrk [36a, b]<6" .3" *UY+.3;" * [RV+.7" .3" *OV+0"Uvflqx "xtej"]59_<6" * [RV+0"TMqne x" rybník [38]<3" *UY+.7" .8" * [RV+0"TMrk "m"]5;_<3" .3" *UY+.3" * [RV+0"Vkej "mc"RR [40]<4" .5" * [RV+.3" *OV+0"X^encxfmqxc"Uvwf^pmc [41]<3" *UY+0

*Scathophaga inquinata**Ogki gp."3:48+

Nkvtg^tp^Áfclg<Lcpqx^*TMkhpgt"4225+0"

Gxtqrum "ftwj."jqlp "pc^xgnok^xnjm ej"dkqvqrgej."x^mqm^t{dp^m .pc^xgigvcek^rqf^2n^hgup^ej" rqvqm "c"x"oqm kp^ej0

Bukovec PR [2b]<4" .3" *UY+0" gtpqwu{/X^Rqk [5]<6" *OV+0"Harta [8]<33" .8" *UY+0" Horní Pertoltice [11]<5" *UY+0" Horní Polubný [12]<3" *UY+0" Lgfngx "f n"RT [13]<5" *UY+.3" * [RV+0" Mq g/nov [17]<3" *UY+0" M flqx "xtej"RT [18]<3" *UY+0" Ludvíkov pod Smrkem [20]<3" .4" *UY+0" Meandry U o f^2"RT [22a]<3" * [RV+0" Pqx^"nqwmc"RT [25]<3" *UY+0" Qnf kej qx"x"J^Ifej [27]<4" *UY+0" Tc-gnkp-k-v Jizerka NPR [30b]<6" *UY+.3" * [RV+.4" *OV+0" Tc-gnkp-k-v "Lk|gt { NPR [31a, b]<3" .:" *OV+0" Smrk [36a, b]<3" *UY+.4" * [RV+.5" *OV+0" TMrk "m"]5;_<3" *RV+0

Scathophaga jizerensis^TMkhpgt."4226

Nkvtg^tp^Áfclg<Tc-gnkp-k-v "Lk|gt {"[53d_^TMkhpgt"4226+0"

Ftwj"rqrup "pc|^"amncf "x -g^wxgf gp^2j q^p^ng|w."okoq^qdcuv^Lk|gtum ej"jqt^|cv^o"pg|lk-/v p0

Jizerka [16]<3" .5" *UY+0" Qnf kej qx"x"J^Ifej [27]<6" *UY+0" Tc-gnkp-k-v "Lk|gtm {"PRT [30b]<3" .3" " *UY+0" Vkej "mc"RR [40]<3" *UY+0

*Scathophaga lutaria**Hcdtkekku."39;6+

Ftwj"tq|^"gp "x^egn^2"rcngctmvkem^2"qdcuvk"x gvp "Ocn^2" Cukg."ugxgtp^"Chtkm{"c" Dn^|m^2j q"x ejqfw0

Bílý Potok [1c]<3" *OV+0" Bukovec PR [2b]<3" *UY+0" Harta [8]<3" *UY+0" Jqtp^Nw cp { [10]<3" *UY+0" Jizerka [16]<3" *UY+0" Mníšek [24]<3" *UY+0" Tc-gnkp-k-v "Lk|gt {"PRT [31a, b]<33" .4" * [RV+0" Umgpc keg [35]<3" .4" *UY+0

*Scathophaga stercoraria**Nkppcgwu."397: +

Nkvtg^tp^Áfclg<Mt^"nqxm."Pc" kjcfng."Pqx^"nqwmc."Qnxgvum^"jqtc^*TMkhpgt"3;89+0"

Jqntmvkem "ftwj"qdgep "tq|^"gp "pc^t |p ej^v{rgej"dkqvqr .xgnok^jqlp "x um{v^pc^wumncf/p p^2o"j pqlk"x^rqf^ej "k"x^dn^|mqvknk^fum ej"u^f^gn"x"o u^e^ej "KX0/X0^XK0+c^KZ0/Z0^ZK0+x gvp "vgrnq^qf^32"fq^7"oE0" Tq|^"gp^k"x^chtqvtqrkem^2" c^qtgkpv^"np^"qdcuvk0

Bílý Potok [1]<3" *UY+0" Bukovec PR [2a, b, c, d, e]<54" .:" *UY+.3" * [RV+0" gtp^"jqtc"RT [3]<6" .7" * [RV+0" gtp^"Igl^"tmc"RT [4]<3" *UY+0" Harta [8]<5" .3" *UY+0" Jqtp^Nw cp { [10]<6" .7" *UY+0" Horní Polubný [12]<3" *UY+0" Lgngp^"uvt^" [36_<4" .5" *UY+0" Jizerka [16]<45" .47" *UY+.4" " * [RV+0" M flqx "xtej"RT [18]<4" .8" *UY+0" Nidgtge/Xguge [19]<:" .:" *UY+0" Ocn^"Uvtepc"RT [21]<:" .5" *UY+.:" .38" * [RV+.3" *OV+0" Pqx^"nqwmc"RT [25]<7" .:" * [RV+0" Qnf kej qxum^2"ugfq [26]<3" *UY+.5" * [RV+0" Poledník [29]<5" .3" * [RV+0" Tc-gnkp-k-v "Lk|gtm {"PRT [30a, b]<38" .36" " *UY+.5" * [RV+.36" .32" *OV+0" Tc-gnkp-k-v "Lk|gt {"PRT [31a, b]<6" .7" * [RV+.457" .363" " *OV+0" T{d^"nqwm {"RT [34]<3" .8" * [RV+.7" .6" *OV+0" Umgpc keg [35]<:" .8" *UY+0" Smrk [36a, b]<7:" .4" * [RV+0" Uvflqx "xtej"]59_<5" .9" * [RV+0" X^encxfmqxc"Uvwf^pmc"]63_<3" *UY+0

*Scathophaga suilla**Hcdtkekku."39;6+

Nkvtg^tp^Áfclg<Lk|gtc^"jqtc^*TMkhpgt"4225+0"

Jqntmvkem "ftwj"tq|^"gp "rq^egn^2" Gxtqr .Cukk^k^pc^Dn^|m^2o"x ejqf "pc^xnjm ej"p^flkpp ej" k^jqtum ej"nqwm^ej."pc^xgigvcek^mqng o" rqvqm "c"x^mqm^rtc o gpk- 0

Bílý Potok [1a,b,c]<7" .9" *U Y+0**Bukovec PR [2a, b]<3"** .4" *U Y+.4" .3" * [RV+0] **gtp^ajqt c**RT [3]<3" *OV+0] **gtpqwu{/X'Rqk [5]<37"** .3" *OV+0**Hqlvgem "o qm c f**RR [6]<3" *U Y+0**Harta [8]<4"** .3" *U Y+0**J qtp^a gtp^aUv w fpleg [9]<8"** .3" *U Y+0**Lkpf kej qxum "o qm c f**RR [15]<3" *U Y+0**Jizerka [16]<3"** ;.48" *U Y+0**Nkdtge/Xguge [19]<36"** .:" *U Y+0**Ogc pft{U o f²RT [22a]<3"** *U Y+0**Minkovice [23]<4"** *U Y+0**Pqx^anqwm c**RT [25]<6" .3" * [RV+0] **Qn f kej qx"x J^aIfej [27]<:"** *U Y+0**Paseky nad Jizerou [28]<3"** *U Y+0**Poledník [29]<3"** *OV+0**Tc-gnkp-k-v "Lk|gtm{PRT [30a, b]<34"** .4" *U Y+.3" .3" * [RV+.3" *OV+0**Tc-gnkp-k-v "Lk|gt{PRT [31a, b]<4"** *U Y+.365" .337" * [RV+0] **T{d^fnq w m{RT [34]<39"** .6" * [RV+.;" .6" *OV+0**Smrk [36a]<3"** *U Y+.6" .3" *OV+0**qne x't{dp^fm [38]<37"** .8" *OV+0**X^aenxfmqxcUv w f^apmc [41]<4"** *U Y+0

*Scathophaga taeniopa**Tqpfcpk."3: 89+

Gxtqrum "ftwj"tq|-**f** gp "x"qdcuvk^cCnr^cfl^cfq^cpc^fo q um²x -m{"eec"4"522/4"622"o "Cwuvtkc."Uvwdpgtmqign⁰Ov⁰.4"462"o "p⁰o⁰.H⁰TMkhpgt^cni v⁰.kp^cnkvv⁰+0⁰P^ang{|"qdcuvkLk|gtum ej^cjt^ck^c"|kp ej^cnqmcnk^vpc^aÀ|g o **f** gum²tgrwdnkm{|wmc|wl^fpc^a-kt-**f**tq|-**f** gp^fvqj qvq^fftwj w⁰

Lkpf kej qxum "o qm c fRR [15]<390XK04225."3" *U Y+.LR⁰**Jizerka [16]<cnqwm f{x"qmqm^ff q o .440XK04228."6"** .8" *U Y+.H⁰**Ocn^aUvtcpc**RT [21]<480XK04225."3" *U Y+.H⁰**Pqx^anqwm c**RT [25]<520KX0/30XKXK04224."3" *OV+0**qne x't{dp^fm [38]<520KX0/4:0XK04224."3"** *OV+0

*Americina vittata**Ogki gp."3: 48+""

U<"EN

Nkvtg^atp^fÀfclg<Mctnqx^c*TMkhpgt^c4225+0"
Jqnc^ctmvkem "ftwj."x" T"x|^aep 0⁰Nctx{"luqw^ch{vqh^aip^f."x xql^cx^ctquvnp^aej^c gngf^f"Nknkcegcg."Qtejkfcegcg^cE^qo o gnmkpegcg."r gfgx-**f**o"x^cftw|^aej^c"tqfw^cOrchis."ftwj w⁰Paris quadrifolia c^{l0}Qejtcp^aum{"x |pcop "ftwj⁰
Hqlvmc [7]<3" *U Y+0**Lgfnqx "f n**RT [13]<3" *U Y+0TM**rk^am**]5;<3" * [RV+0] **Vlej^am "f mc**RR [40]<3" *OV+0

*Delina anthrax**Uejkpgt."3: 86+""

U<"EN

Gxtqrum "ftwj."h{vqh^aip^f"nctxc^cflklg| r q^avmw^cx^cnkuvgej."rq| f lk^cxg^cuvqpmw^ctquvnp^aVeratrum album⁰Mwm^fug^cx^crqrq^cxtejqx ej^crngvkxgej^cuvqpmw^cx^cv up²dn^f|mqvkv|go .m^cn^fjp^wv^fkoci^cfqe^a|^fx^cfqd .mf{|"oncf²tquvnp^a|"fquc^cjw^f|x -m{"37/42"e o⁰Qejtcp^aum{"x |pcop "ftwj⁰
Bukovec PR [2b, c]<4" *U Y+0**Jizerka [16]<3"** *U Y+0**Ocn^aUvtcpc**RT [21]<3" * [RV+0] **Tc-gnkp-k-v "Lk|gt{NPR [31a]<3"** .3" *OV+0

*Delina nigrita**Hcnn²p."3: 3;+""

U<"VU

Nkvtg^atp^fÀfclg<Mt^anq^cmc^c*TMkhpgt^c3: 89+0"
Jqnc^ctmvkem "ftwj."x^cren^cctm^cvkem²qdcuvk^clg^cx xql^cx^a|^ap^crtexf r qf qdp "pc^cVeratrum^cur r⁰pgdq^ckp^cftwj {" gngf^cQtejkfcegcg^c*eh⁰Jcem o cp³;78+."x" T"x|^aep 0⁰Qejtcp^aum{"x |pcop "ftwj⁰
Ocn^aUvtcpcRT [21]<:0X0/390XK04224."3" * [RV+0

Ngrvqrc"*Enkhtoku*"\ gwgtuv^fv."3: 5:

Gxtqrum "ftwj"tq|-**f** gp "x"ugxgtp^fc^cuv gfp^fGxtqr "pc^ct |p ej^cv{rgej^cdkvqr .pcr 0⁰nqwm{."m qxkp{."nw^fp^fngu{0⁰Nctx{"luqw^crtexf r qf qdp "h{vqh^aip^f0
Nkdtge/Xguge [19]<3" *U Y+0**Ocn^aUvtcpc**RT [21]<3" *U Y+0**Tgl fkeg [32]<3"** .3" *U Y+0

Oketrugncrjc"*Enkhtoku*"\ gwgtuv^fv."3: 68+

Ftwj"tq|-**f** gp "rtexf r qf qdp "x^cegn²Gxtqr "pc^cx^cn^cm ej^cnqwm^aej^c.x"PR^cRqf{|^fpc^cx^feg^chqmc/^cnk^v^aej^c*Dctv^am ("Mwd^fm^c4227+0

Bukovec PR [2b]<3" *U Y+0**Poledník [29]<3"** *OV+0

\ jqfpgqgp\ x ungfm

Pc"64"nqmcnkvej"x"Lk|gtum ej"jqt^ej"cx"qdncuk"Ht fncpvumcd{nq"x"ngvgej"422464229"
ogvqfcok"Ocnckugjq"rcuv"OV+."fnwv ej"okugm*[RV+."ocuqx ej"rcuv"RV+c"uo {mw*UY+
qfej {egpq^egnmgo"5"56;"lgfkpe " gngfk"Uecvjqrjrcikfcg"Xg"68"ftw|fej"Vgvpv"rq gv"qfrqx"fa"
7;.: " "x-gej"ftwj "|lk-v p ej"pc"À|go" gum^2"tgrwdnk{x gvp "fxqw"ftwj ".Scathophaga
jizerensis"TMkhpgt."4226c"Norellisoma vonickai"TMkhpgt."422:"rqrucp ej"| "Lk|gtum ej"jqt^TMkhpgt"
4226."422:c+0"Ogvqfqw"Ocnckugjq"rcuv"d{nq"qfej {egpq";49"lgfkpe "723"uc oe ."648"uc oke."
v10"49.9" ' +."ogvqfqw"fnwv ej"okugm":52"lgfkpe "7:5"uc oe ."469"uc oke.v10"46.: " ' +."ogvqfqw"
uo {m "3"7;2"lgfkpe " : :4"uc oe ."92:"uc oke.v10"69.7" ' +c"ogvqfqw"ocuqx ej"rcuv"rqw|g"
fxc"lgfkpek"3"uc oge."3"uc okeg.v10"2.3" ' +0"TGncvxp " ogp-| o p qfluwx"qfej {egp ej"lgfkpe "
ogvqfqw"Ocnckugjq"rcuv" c"fnwv ej"okugm"Xg"utqxp^p"u"ogvqfqw"uo {m "lg"|r uqdgpp"r g/
fgx-|o"cmvxxkqv"fqur ne 0" Fqur nek"luqw"ftcx^2" oqwej {"mvgt^2"nqx"mq kuv" cfl"Xg"urqfpfej"
rctvkfej"Xgigvceg"|cu"p p ej"cxnjm ej"dkqvr "pplt |p l-|ej"v{r ."w"pctrtqv^2"x v-kp{ "ftwj "
lg"cmvxxkvc"x"rtquvqtw"Xgnok"qog|gp^pc"v{rkem{"rtgfc p"rqj {d"og|k"Xgigvceg"0"pglA kpp l-|
ogvqfqw"lgkfej"qfej {vw"lg"uo {m"x"pplpkf-|ej"rctvkfej"Xgigvceg"pgdc"v up "pcf"|g o"Ogvqfc"
Ocnckugjq"rcuv" c"ogvqfc"fnwv ej"okugm"lg"Xjqfp^a" c"ghgmvxp" x"fqd " cuvq" j tq ocfp^2"jq"
n"jpwv" koci="vcvq"ghgmvxkvc"d{nc"rqvxt|gpc"wp"mvgt ej"ftwj "tqf "Cordilura" c"Scathophaga
r gfgx-|o"x"lctpfej"qfd tqx ej"vgt o"pgej 0

Pglhtmxgppvqxp l-|ok"ftwj {"c"egn^2"ungfqxcp^2"qdfqd"d{n<"Scathophaga furcata"*49"nqmc/
nkv+."Parallelomma albipes"*46"nqmcnk+."Scathophaga stercoraria"*45"nqmcnk+."Scathophaga
suilla"*44"nqmcnk+."Norellisoma nervosum"*39"nqmcnk+c"Scathophaga inquinata"*38"nqmcnk+0"
Fcn-|ftwj {"d{n"qfej {v^axap| "dg|tq|f"nw"rqwflk^2"ogvqf {"pc"t |p^2"o"rq vw"nqmcnk"x"tq|og|
qf"lgfp^2"fq"fgugk"nqmcnk="32"ftwj "d{nq"qfej {egpq"rqw|g"pc"lgfp^2"nqmcnk 0"Vgvpv" |pc p "
tq|f"np "rq gv"lg"r gfgx-|o" |^axkun "pc"|r uqdw"x xqlg"lgfpqvkx ej"ftwj <h{vq"i p"ftwj {"
luqw"x^a |ap {"pc"lgfkp "ftwj"jqukvgnum^2"tquvnp {"pcr 0"Delina anthrax"pc"r "vq opquv"m ejcxkeg"
*Veratrum"ur r0+."Norellia spinipes"rtcx f r qf qdp "pc"dngfwnk"Leucojum"ur r0+."Cordilura atrata
pc"quv kek"Carex rostrata, Cordilura pubera pc"quv kek"Carex hirta="w"Xgm^2"x v-kp {"qfej {eg/
p ej"ftwj "lg"x xqlqx "e{mnwu"pg|p^a o 0"W"ftwj "tqfw"Cordilura"lg"x xql"rtcx f r qf qdp "
x^a |cp "k"pc"p mqnkm"ftwj "quv kel

\ "egnmqx^2"jq"rq vw"68"ftwj "lg"8"*35" ' +wxgfgpp" x" gtxgp^2"o"ug|pcow"qj tqflgp ej"
ftwj " gum^2"tgrwdnk {"TMkhpgt"4227+0" Fxc"ftwj {"luqw"|c c|gp {"x"mcvgiqtkt"qj tqflgp <"Ame-
ricina vittata."x^a |cp^a"pc"p mvgt^2"ftwj {"tquvnp" gngfk"Qtej kfcceg."c"Delina anthrax."x^a |cp^a"
pc"m ejcxkek"Veratrum"ur r0+0" v{k"ftwj {"luqw"|c c|gp {"fq"mcvgiqtkt"|tcpkvgnp <"Norellia
spinipes"x^a |cp^a"pc" Narcissus"ur r0" c"rtcx f r qf qdp "k"pc" dngfwnk"Leucojum"ur r0+."Delina
nigrita."lg|fl"nctxc"flkl"rtcx f r qf qdp "tqxp fl"pc"m ejcxkek"Veratrum"ur r0+."Norellisoma
alpestre" c"Norellisoma mirusae."w"pkej fl ppp"j qukvgnum^a"tquvnp"tgur"0"x xqlqx "e{mnwu"|p^a o 0"
M"pplx |pcop l-|o"ftwj o" |lk-v p ej"Xg"uvwfqxc^2"o"À|go"rcv "r gfgx-|o" Cosmetopus
dentimanus."Gonartcticus abdominalis" c"Norellisoma alpestre"0"ftwj" Cosmetopus dentimanus
d{n"x" gum^2"tgrwdnkeg" |lk-v p"pc"TMwo cx "TMkhpgt"3; ;9+."lgjq"x um{x"v"x"l"l"gtum ej"jqt^ej"
r gfuvcxwlg"pplugxgtp l-|p^ang|Xg"uv gfp" Gxtqr 0"p^ang|dqtgq o qpv^a"pp"j"q"ftwj w" Gonartcticus
abdominalis."mvgt "d{n" |lk-v p"x" gum^2"tgrwdnkeg"fquw"r qw|g"pc"r vk"nqmcnkvej."h|g"r qxcflqxcv"
tqxp fl|c"Xgnok"x |pcop 0"ftwj" Norellisoma alpestre"lg"v{rkem o"jqtum o"ftwj go"Xg"uv gfp"
Gxtqr =p|gldnkfl-|p^ang| {"luqw"|c |pc o gp^a p {"| "Mtmqpq- "TMkhpgt"4225+"c"r qnum^2" ^uvk"l"l"gtum ej"
jqt."nqmcnkvc"U|mnctumc"Rqt dc"*eh0" Ftc dgt/Oq mq"3; ;3+0

XQPK MC'Rl'422:<Gpvq o qnq ikem "x |mw o'Lk|gtum ej"jqt" c'Ht fncpvumc"x'ngvgej"4222/42290*Gpvq o qnq ikem'uwtxg{" qh"vjg"Lk|gtum"jqt{"Ovu"cpf"Ht fncpv"tg ikqp"kp"4222/4229+0"Udqtp0"Ugxtgq gu0"Ow/0."R f#X ff."Nkdgtge."48< 5/34*kp"E|gej."Gpinkuj"uw o o0+0

XQPK MC"Rl" ("XkM fM" T0" 422:<"\ "mncfp"ejctcmvgtkukmc" |mqw o cp2"j q"À|g o" Lk|gtum ej"jqt" c'Ht fncpvumc0" * I gptcn"ejctcevgtkukve"qh"vjg"uwf{"ctgc"kp"vjg"Lk|gtum"jqt{"Ovu"cpf"Ht fncpv"tg ikqp+0"Udqtp0"Ugxtgq gu0" Ow/0."R f#X ff."Nkdgtge."48<35/55*kp"E|gej."Gpinkuj"uw o o0+0

UWO OCT [

Cnvq igvjgt"437"xcnkf"urgekgu"cpf"34"fqwdvhn"urgekgu"qh"vjg"hc o kn{"Uecvjqrjckfcg"ctg" o gpvkqpgf"htq o "vjg"Rcncgctevke"tg ikqp"*TMkhpgt"422:d."Q|gtqx"4229+."kpenwfkipi"6;"urgekgu" *4409 ' +fkuvtkdwvfg"kp"vjg" J qnctevke"tg ikqp-"99"urgekgu"*570: ' + "qeewt"kp"vjg"E|gej" Tgrwdnke0" Kp"422464229."cnvq igvjgt"68"urgekgu"qh"vjg"hc o kn{"ygtg"hwqpf"kp"vjg"Lk|gtum"jqt{"Ovu"cpf" Ht fncpv"tg ikqp0"Vjku"tgrtgugpvu"7;0: ' "qh"Uecvjqrjckfcg"urgekgu"mpqyp"vq"qeewt"kp"vjg" E|gej" Tgrwdnke"*TMkhpgt"4228."422:c+0

Cnvq igvjgt"5056;"urgek o gpu"qh"vjg"hc o kn{"Uecvjqrjckfcg"ygtg"ecrvwtgf<"307;2"urgek/ o gpu"d{"uyggrkpi": :4" o cngu."92:"hg o cngu"klg0"6907 ' +;"49"urgek o gpu"wukpi"Ocnckug"vtcru" *723" o cngu."648"hg o cngu"klg0"4909 ' +;"52"urgek o gpu"wukpi"{"gnnqy"rcp"vtcru"*755" o cngu."469"hg/ o cngu"klg0"460: ' + "cpf"qpn{"4"urgek o gpu"wukpi"rtqvgkp"vtcru"*3" o cng."3"hg o cng"klg0"203 ' +0

Ukz"urgekgu"hwqpf"kp"vjg"uwf{"ctgc"ctg" kpenwfgf"kp"vjg"tgf"nku"qh"E|gej" kpxgtvgdctcvgu" *TMkhpgt"4227+0"Vyq"urgekgu"ctg"encuukŁgf"cu"gpfcpi"gtgf"*GP<"Americina vittata."Delina anthrax."hqwt"urgekgu"cu"xwnpgtcdng"*XW+<"Delina nigrita. Norellisoma alpestre. Norellisoma mirusae"cpf"Norellia spinipes0

Fwtkpi"vjg"uwtxg{"v y q"pgy"urgekgu"ygtg"fguetkdgf"d{"vjg"cwvjqt<"Scathophaga jizerensis" kp"4226"htq o "vjg" Tc-gnkpk-v "Lk|gt{"PPT"J53c_ "cpf"Norellisoma vonickai"kp"422:"htq o "vjg" Dwmqxe"PT"J4f_0

Vjg" o quv"htgswgpn{"tgeqtfgf"urgekgu"kp"vjg"uwf{"ctgc"ygtg<"Scathophaga furcata" *49"nqecnkvgu+."Parallelomma albipes"*46"nqecnkvgu+."Scathophaga stercoraria"*45"nqecnkvgu+." Scathophaga suilla"*44"nqecnkvgu+."Norellisoma nervosum"*39"nqecnkvgu+."cpf"Scathophaga inquinata"*38"nqecnkvgu+0"Vjg"qvjgt"urgekgu"ygtg"eqnngvegf"cv"qpg"vq"vgp"nqecnkvgu="vgp"urgekgu" ygtg"eqnngvegf"cv" c"ukping"nqecnk{0"Hkpfkpi"qh"Cosmetopus dentimanus"ku"vjg"pqtvjgtp o quv" tgeqtf"kp"Egpytcn"Gwtqrg."y jgtg"kv"ugg o u"vq"dg"ejctcevgtkukve"hq" o qpvcpg"jcdkvcu"*tgeqtfu" htq o "vjg"TMw o cxc"Ovu."TMkhpgt"3; ;9."4225+0"Qh"vjg"urgekgu"eqnngvegf"kp"vjg"uwf{"ctgc."34"ctg" J qnctevke."3;"Rcncgctevke"cpf"37"ctg"Gwtqrgcp"urgekgu0

Cfwnvu"ctg"rtgfcgqwu."eqrtqrjciqwu"0"Scathophaga stercoraria."S. lutaris."S. furcata+." rctvkcnn{"cnuq"pgevtqrjciqwu."hggfkipi"qp"řqygtu"qh"Nuphar luteum"*Hydromyza livens+0"Oc/ lqtkv{"c"cfwnvu"jwp"vjgkt"rtg{"ugetgvn{"c o qpi"nqygt"rctvu"qh"xg igvcvqp"cpf" o c {"dg"ecrvwtgf" d {"rfg"gvutkcp"uyggrkpi"qt"d{"kp"fkxkfwcn"ecvejkpi"ykvj"pgv0"Vjgkt"cevkxv{"kp"vjg"htgg"urceg" ku"xtg{"nk o kvgf."vjgthqatg"vjg"swcpkv{"qh"urgekgu"ecwi"jv" wukpi"Ocnckug"vtcru"qt" {"gnnqy"rcp" vtcru"ku"qhvgp"okpqt"eq o rctgf"vq"uyggrkpi0"Vjg"uwg"qh"Ocnckug"vtcru"cpf" {"gnnqy"rcp"vtcru"ku" uwkvcndng"gurgekcn{"kp"vjg"rgtkqf"qh"g o gt igpeg"qh"cfwnvu0

